MOTOR AGE

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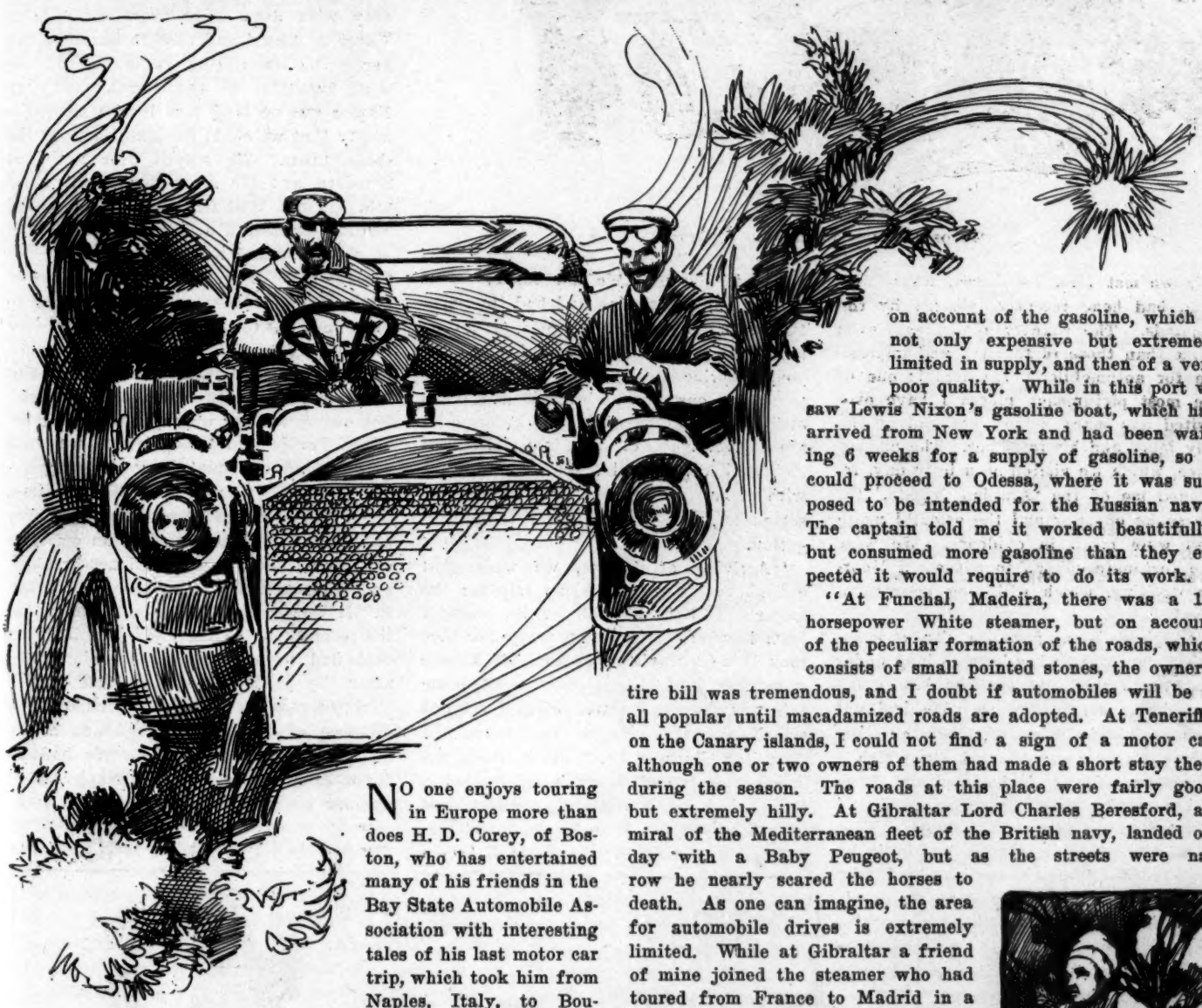
FROM NAPLES TO BOULOGNE IN A MOTOR CAR



NO one enjoys touring in Europe more than does H. D. Corey, of Boston, who has entertained many of his friends in the Bay State Automobile Association with interesting tales of his last motor car trip, which took him from Naples, Italy, to Boulogne, France, a distance of 2,300 miles. He makes these foreign trips annually.

"For the last four summers I had toured principally through the British Isles and in different parts of France and Germany, but last year I sailed April 4 on the Hamburg American yacht Princess Victoria Louise for Naples, where I met my car, a 6-cylinder 30-horsepower Napier," Mr. Corey says. "During the voyage we touched at several places and I had some curiosity in looking up the automobile sport. At Ponta del Garde, in the Azores, I found a chap who had a car which ran tri-weekly; that is, it ran one week and tried the next. This was principally on account of the gasoline, which is not only expensive but extremely limited in supply, and then of a very poor quality. While in this port we saw Lewis Nixon's gasoline boat, which had arrived from New York and had been waiting 6 weeks for a supply of gasoline, so it could proceed to Odessa, where it was supposed to be intended for the Russian navy. The captain told me it worked beautifully, but consumed more gasoline than they expected it would require to do its work.

"At Funchal, Madeira, there was a 15-horsepower White steamer, but on account of the peculiar formation of the roads, which consists of small pointed stones, the owner's tire bill was tremendous, and I doubt if automobiles will be at all popular until macadamized roads are adopted. At Teneriffe, on the Canary islands, I could not find a sign of a motor car, although one or two owners of them had made a short stay there during the season. The roads at this place were fairly good, but extremely hilly. At Gibraltar Lord Charles Beresford, admiral of the Mediterranean fleet of the British navy, landed one day with a Baby Peugeot, but as the streets were narrow he nearly scared the horses to death. As one can imagine, the area for automobile drives is extremely limited. While at Gibraltar a friend of mine joined the steamer who had toured from France to Madrid in a 24-horsepower de Dietrich, but found the roads so bad below Madrid that he gave it up and shipped his car to Algiers for use there.

"From Gibraltar we went over to Tangiers, but the roads consist principally of footpaths, bad enough to walk on, and a donkey is the only means of locomotion. We did not see a single carriage while there, but in the country one day outside of the

MOTORING ALONG THE HILLS OF ITALY

city we met Mrs. Perdicaris, whose husband had bene recently released by the brigands. The country roads are even worse than those in the city and impossible for automobiles. Tangiers is one of the most picturesque places I have ever visited and many stories are told of the wily Moor and his intrigues. The market place, which we visited on a busy day, reminded me of the 'Arabian Nights,' for the snake charmer and the oriental magician were much in evidence. We were also fortunate enough to witness a Moorish wedding, which will long be remembered.

"Algiers is a paradise for automobilists, for Algeria has been so long under the French rule that one can hardly believe he is not in France. We had not been on shore 20 minutes before a big French touring car whizzed by, which I afterwards found had come in from Biskra, a city about 150 miles away and situated on the edge of the desert. Most all of the roads in Algeria are built by the French military authorities and they already have 800 motor cars there. It seems to be the proper thing now, after touring France, to ship your car from Marseilles to Algiers and spend 2 or 3 weeks in Algeria. The hotels are good, the roads are fine, and beyond being sure of a supply of gasoline, which can be easily arranged, the discomforts are few and the country and people are so novel and interesting that it is well worth the trip to that country.

"At Palermo, Sicily, we saw no motorcars, but understand that occasionally one lands there and tours from Palermo to Tormina on the other side of the island. This latter city is becoming popular, and I think it is one of the most beautiful places in Europe. We saw the battle of the flowers at Palermo and had the satisfaction of landing a bouquet plump on top of Emperor William's head, while the young princes vigorously pelted the women in our party with flowers. When sailing out of the harbor at Palermo at night the view of the imperial yacht Hohenzollern, lighted from stem to stern with electricity with a large number of set pieces, was a sight never to be forgotten.

"Arriving at Naples, we were glad enough to change our ocean trip for the motor car, but the bill for its transfer from London to Naples on a steamer that took 18 days was a revelation. The charge was $200, and the shippers assured me this was the usual rate. When I shipped the Napier from Boston to London the American Express Co. took it from the Massachusetts club house and delivered it to the dock in Charlestown, a distance of over 3 miles, sent it to England and carried it to the factory of Edge & Co., a distance of over 6 miles, for $95. C. J. Glidden shipped his motor car from Shanghai to London, a distance of 10,000 miles, for $75. So the bill from these shippers was an eye-opener. I afterwards obtained some figures from other shippers, and after some correspondence I was rebated $25, but I still consider the shippers owe me at least $75 more. Had I been wise I would have secured figures beforehand. I will next time.

"From Naples we toured to Pompeii, over 15 miles of pavements, passing through Nocera, a place famous for its spring water, arriving in the afternoon at Vietri. There had been no rain around Naples for a long time and the roads were deep with dust. The shore drive from Vietri to Amalfi and then to Sorrento can hardly be described. It is one of the most beautiful in the world, and my Napier was so long that it was with difficulty that we could navigate some of the sharp turns. We stayed over night at Sorrento, and the proprietor of the hotel told us that William Waldorf Astor had recently purchased a desirable lot of land on the shore and would erect a huge edifice for a dwelling. I was sorry to see a trolley line inaugurated from Sorrento to Castellamare, for it spoils the road for the driving tourist. We drove to Rome, passing Aversa, Capua, Sessa, Fondi and Terracina. The country was quite level, but dusty, the one hilly portion being between Fornia and Fondi, where we went over a range of mountains.

"The country hotels of Italy are bad, and our luncheon at Terracina will never be forgotten. It consisted of an omelette with bread so hard we could not break it and wine so sour we could hardly drink it. It was served in a large bedroom on the second floor of the hotel in a building that had probably been erected shortly after the flood. From Terracina to Villetri we rode on the old Appian Way, a distance of 34 miles, straight as a die and level as a board floor. We had an opportunity to see what the Napier could do and we ran for several miles at the rate of 53 miles an hour and over. This was not bad for a heavy car with five

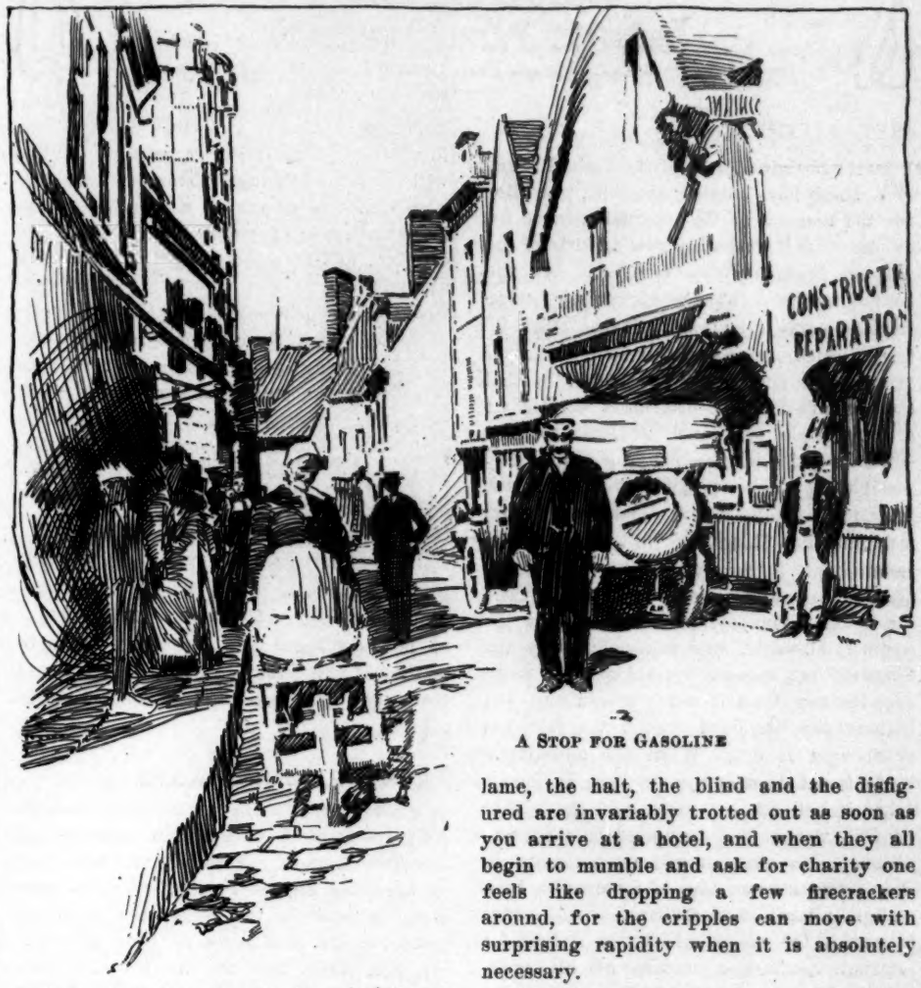
APPIAN WAY. A STRIAGHT 34-MILE STRETCH OF SMOOTH ROAD

people aboard and loaded with luggage. In Rome we found a great many motor cars of all sorts and kinds. The price of gasoline in Italy is 20 cents a litre, equal to about $1 per gallon. After spending a week in Rome and making short excursions to Villetri, Tivoli, etc., we left for Perugia. After we had traveled about 30 miles of the distance and not meeting with many houses, we stopped to inquire the way and found we were on the right road, which ran through a beautiful farming country. We had hardly descended from the car before we heard the toot of a horn and a big 40-horsepower Panhard came rushing by, going like a whirlwind. Just beyond us the road ran into a valley and then ascended a long, straight hill, and the way that car went up was a caution. We overtook the machine at Spoleto, where we lunched, and found the owner was a well-known New York clubman who resided in Lenox, Mass., and who had been the terror of the citizens of that good Massachusetts town; in fact, I believe they used to telephone him daily asking which way he was going so they could keep off the road. Evidently he had used up Massachusetts and was now flying over Europe.

"From Spoleto to Perugia, a distance of about 40 miles, the road is as smooth as a board floor, and at Assisi we visited the church of St. Francis. The Franciscan monk in charge took us over this beautiful church, erected in 1300, and showed us the rose garden where St. Francis scourged himself and awoke the next morning to find that the thorns had miraculously been transformed into roses. After he had shown us around I gave him a fee and, as he could speak English well, I asked him if he thought the legend is true, to which he mechanically answered, as he slipped the coin into his pocket, 'Sure.'

"We traveled the balance of the way from Assisi to Perugia at a high rate of speed, arriving before our Panhard friend. During the whole trip this was the only car that ever passed us. When we awoke the next morning in Perugia we found it raining in sheets and we did not envy the tourists who had to get up early in order to catch the train for Sienna. They looked pretty forlorn as they drove down to the station, while we turned over and went to sleep again. About 10 o'clock the sun came out and, although the roads were rather slippery, we got along comfortably. The road from Perugia to Chusi, via Lake Trasimeno, goes through the garden country of Italy and it seemed as if we were motoring up the driveway of some large estate. The grape vines were just beginning to blossom and the flowers and shrubs were in full bloom. We had been advised to visit Montepulciano. Of all the hills we ever went up, that was the highest. It is a town on the top of a mountain that you can see for miles and miles around, and we were compelled to use our first speed. The landlord of the hotel gave us a fine luncheon and we met some people there who spoke English, so we enjoyed ourselves for a couple of hours.

"Continuing on through Pienza, we had the misfortune to run over a dog, but the roads were so slippery it was impossible to turn out, and the language that the owners used was far from polite. Sienna is situated on quite high ground and we could see the city long before we reached it at 5 o'clock in the afternoon. We had time to visit the beautiful cathedral and several points of interest before the people who left by the morning train arrived from Perugia. The run to Florence only occupied about 3 hours the next morning, and the one place of note that we visited was the monastery of Certosa. The old monk who showed us around could speak a few words of English, which he used with great delight, and insisted on showing us the tombs of all the monks buried there since the thirteenth century, but we were more interested in buying some chocolate. He was much disappointed when we balked at going down three or four flights of dingy stairs, but brightened up considerably when we made quite extensive purchases of liquors, which are made in the monastery, and he bade us good-bye effusively.



A STOP FOR GASOLINE

If any people on the face of the earth have the 'itching palm' it is the Italians. The first English word that the children are taught is 'money,' and even the babies hold out their little hands and whisper 'money,' 'money,' and they usually continue it all their lives. They never seem to take offense if you don't give them what they want, but if you happen to drive slowly they will run alongside of the motor car for miles, hoping you will drop a few coppers on the road. The lame, the halt, the blind and the disfigured are invariably trotted out as soon as you arrive at a hotel, and when they all begin to mumble and ask for charity one feels like dropping a few firecrackers around, for the cripples can move with surprising rapidity when it is absolutely necessary.

"In Florence we had the only rainy weather experience during the trip and we were fortunate enough to find quite a number of our friends who welcomed us most cordially. We passed the first few days in looking through the picture galleries and sampling the different restaurants, and we used to find the best food in the smaller places and it cost the least money. We had spaghetti a la Milanese and artichokes served in some peculiar way, until we were nearly black in the face. The ride up to Friesole affords a superb view of the valley of the Arno and the motorman of the electric car found we could slide down hill in our automobile just as fast as he could.

"While in Rome and Florence, we had been cautioned not to go through Carara on the way to Genoa, but we did not think the roads could be worse than some of our American highways."

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FREE ALCOHOL

WHEN the congress of the United States shall have passed the bill providing for the removal of the internal revenue tax on denatured alcohol, a new industrial era will set in. The removal of this tax will be the means eventually of opening industries in many directions, but the chief interest which motorists have in the passage of the bill now being considered is that the manufacture of denatured alcohol on a large scale will mean at least to keep down the price of gasoline to a normal and sensible figure or possibly to reduce the price as it stands today. The Standard oil monopoly has things all its own way; the recent boost in the price of that necessary article for automobiles, motor boats and the internal combustion motor used in the commercial world, was manipulated by the Standard not because it costs more to make gasoline now than it did a month ago, but because the Standard needed the money—or thought it did. When the automobile world is not dependent upon John D. Rockefeller it will breathe easier and the advent of free alcohol will bring about that condition. Few changes will be necessary in the present construction of motors; in fact, a slight alteration in carbureters will suffice to permit the use of alcohol as a fuel for internal combustion motors of all sorts, and that change will be brought about the moment the bill has become a law.

TOURING AND SCORCHING

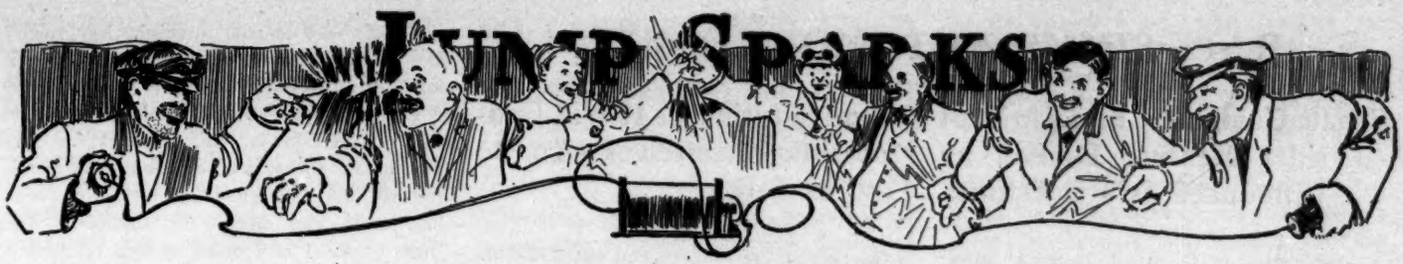
SCORCHING among automobilists is rapidly becoming a thing of the past, except among novices. While it must be admitted the novice is ever present and his number is continually on the increase, he will be held in more or less restraint by the sensible motorist, who has passed through all stages of trouble that falls to the pioneer. Scorching will die a natural death, just as all innovations do, and in its place the motorist will resort to that far more sensible way of using the automobile—touring, which has no objectionable and many commendable features. The sane motorist does not enjoy scorching and the insane motorist soon tires of it; but of touring one does not tire. The increase that will take place in the ranks of automobilists this spring will mean an immense increase in touring all over the country, with a corresponding increase in the business that will accrue as a result. It will keep thousands of people from leaving the country and spending time and money abroad; it will mean a better acquaintance with one's own country; it will mean cultivating a more friendly feeling with the rural resident, and it will mean a deeper interest in the good roads question. It is consistent with good policy that the clubs and other motoring organizations of the country are endeavoring to promote touring by pointing out favorable routes, by arranging guide boards, by appointing official hotels and garages, and by doing other things that will make it convenient and comfortable for the tourist. Touring ought to be encouraged and scorching ought to be discouraged—the one will be the life and the other the death of automobiling if kept up.

ANENT GOOD HIGHWAYS

MOTORISTS ought to be more thoughtful of their own welfare and that of the other users of automobiles in the matter of improved highways; they ought to take more interest in the work that is being promoted for good roads all over the country, for, while they are not the only people who will profit by improved highways, they are directly benefited and they have either the time to give to the subject or the influence that is necessary to bring about desired reforms. What if the other users of the highways do receive a little benefit, should that take away the motorist's interests in the matter? The trouble is the average motorist is too busy running his car and having a good time to even consider what good he might do were he to give the minutest particle of time to the matter. Congressman Brownlow has been endeavoring to interest motorists for a year or more in the Brownlow-Latimer bills, now before congress, and all that is required to have these bills become laws is that motorists and others interested write their respective congressmen and demand the passage of the measures. It is as Congressman Brownlow says, the inland states have contributed liberally to harbor improvements for the seacoast states; the tax-paying millions have paid many billions to build up special interests, while their own interests have been lost sight of or passed with indifference. According to the figures of the department of agriculture the money spent on rivers and harbors up to this time would have given the entire country a splendid system of highways. The question of national aid to highway construction and improvement has reached that stage where the people must act in some decisive way, and motorists, if they start the ball rolling, can have credit for forcing a blessing upon the country. But this blessing will never materialize if each motorist is so selfish as to say to himself: "Well, my little self will not count for much; somebody else will do it." It would take perhaps 10 minutes to write a letter to a congressman. If each motorist should write a letter, does anybody suppose there would be any doubt as to the outcome of the measures now before congress?

CONVINCING TESTS

BECAUSE most manufacturers of automobiles in this country have about all they can do at this time to fill orders is no reason why some attention should not be given to advertising for the future. The automobile game is not like the carriage business. It requires different methods of booming and it requires continuous booming on the part of each manufacturer to keep his goods before the public in the light he should desire. The remarkable absence of reliability tests except those promoted by individual makers or dealers must sooner or later prove more or less disastrous for future business. A big road race once a year, a series of speed contests once during the winter and a hill-climb or two in a season, all of which are in one way or another for the few, will not suffice. The manufacturers can ill afford to ignore such affairs as reliability contests, endurance runs and the like—nothing could be more convincing to a prospective purchaser than an endurance contest through which a car had gone with practically a clean record, and this view will be shared by the trade at no far-off date. Of late, dealers have been given to promoting non-motor-stop runs, which, while convincing arguments as to the motor, do not necessarily tell the tale of construction as well as would actual endurance runs over all sorts or roads and under all sorts of conditions. The affair in the fall of 1903 was the one great argument that convinced the public of the practicability of the motor car.



If kerosene will kill Jersey mosquitoes, will gasoline kill motorphoby bugs?

If anybody thinks the show atmosphere is clearing he is mistaken, and only Show Forecaster Miles will be able to tell what's what for the future.

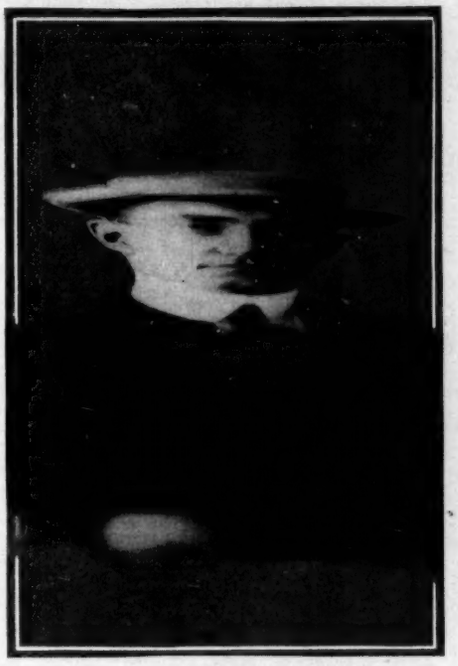
The racing board of the A. A. A. may congratulate itself if former Chairman Morrell consents to become a member of that body, even in an advisory capacity.

If the Associated Patents Co. is in the market for all the automobile patents that are granted by the government, there will be record crops of inventors each and every week.

When our foreign friends read of the armored automobiles being built to ward off Indians while transporting gold they surely will believe all the tales of the wild and woolly west.

Hill-climbing seems destined to take the place of track racing, according to the elaborate plans being made by the motorists of Boston and Wilkes Barre. It's a welcome change, for a good hill-climber can always get up in the world.

A MOTORING PHOTO CARTOON



PERCY MEGARGEL

Let it be sincerely hoped the groundhog has given way to the lamb for keeps for one season.

The new president of France has broken a record—he's the first president of the republic of France to own an automobile.

Those little rows that occur between English automobile trade men are declared by authorities to be real and not advertising stunts in any sense.

Alcohol has put many a man to the bad, and if congress passes the free alcohol bill perhaps it will put John D. Rockefeller in the same position, as far as gasoline is concerned.

Now that the storm has about blown over, it looks as if the New York and New Jersey legislatures would enact measures that will at least give motorists a show for their white alley. There's been enough hot air to pacify the farmers.

Percy Megargel hoped to reach New York in time for the big automobile show there; now he hopes to reach Omaha in time for the little affair on the bank of the Missouri. While he is something like 4 months behind time, he has gained about 4 years of experience on his trip.

The breathing spell between show time and racing is about at an end.

Motorists are offering thanks for one thing—the law makers will soon be through and will have done their worst.

General Manager Miles of the N. A. A. M. is somewhere down in Jamaica. Is it possible he is looking about for a show site?

If this non-stop game keeps up first thing the agents know each and every prospective purchaser of an automobile will expect a thousand-mile demonstration.

Just why a butter-in horse editor who has been a persistent foe of automobiles and automobilists should be honored by the American Automobile Association is almost beyond comprehension.

The N. A. A. M. says a national show for each New York and Chicago and no other shows; the A. M. C. M. A. says local shows for each New York and Chicago; Boston, Philadelphia, Buffalo, Detroit, Washington and Cleveland say local shows —and there you are.

W. K. Vanderbilt, Jr., returns from Europe and denies he has purchased six-cylinder Mercedes racer; he intimates he will be represented in cup event.

L'Hommedieu bill supported by motorists; it is believed it will be only bit of automobile legislation enacted by New York legislature.

Sims bill is hit hard rap by senate committee, which asks motorists to draft measure to be considered as substitute.

American Motor Car Manufacturers' Association declares in favor of local shows being held in Chicago and New York.

Two non-stop runs successfully pulled off in Chicago, Oldsmobile going 100 hours and Frayer-Miller 60 hours.

Meeting in Cannes results in interesting competitions in consumption tests, hill climbs and hub brake trials.

Record-breaking entry anticipated for Atlantic City meet; match race between Cooper and Bald proposed.

Toronto show has successful opening; American, French and English cars liberally represented.

Grout steamer shows several bursts of speed in trials preliminary to being shipped south.

Bay State Automobile Association decides not to hold hill-climb on Patriots' day.

April 2-7—Baltimore automobile show.

April 2-8—Voiturette competition from Milan to San Remo, Italy.

April 4-7—First annual show, Automobile Dealers' Association, Auditorium hall, Omaha, Neb.

April 5-12—Cycle and automobile exhibition at Athens, Greece, in conjunction with the Olympian games.

April 15—Touring car competition in France.

April 18-21—Automobile show, Denver, Col.

April 20-22—Touring car competition, France.

April 25, 26, 27—Beach races, Atlantic City, N. J. Atlantic City Automobile Club.

April 26, 27, 28—Beach races, Atlantic-Pablo beach, Fla. Jacksonville Automobile & Motor Club.

May 3—Tourist trophy trials, Isle of Man, Great Britain. Automobile Club of Great Britain and Ireland.

May 6—Targa Florio touring car race, Italy.

May 10, 11, 12—Wilkesbarre, Pa., hill climb.

May 13—Voiturette competition, Austria.

May 13-24—Motor cycle tour of France, starting from Paris. Auto-Cycle Club of France.

May 15-25—Milan gold cup race, Milan, Italy. Italian Automobile Club.

May 15-31—Endurance run, Italy.

May 24, 25, 26—Open air show, New York. Automobile Trade Association. Empire City track.

RAPS SIMMS AUTOMOBILE BILL

Senate Committee on District of Columbia Intimates It Will Consider Measure Drafted by Motorists Themselves—To Be Introduced as a Substitute—Dealers Talk

Washington, D. C., April 2—Sims' automobile bill got some pretty hard raps in the senate committee on the District of Columbia last Saturday, when a hearing was granted to the advocates and opponents of the measure, which recently passed the house of representatives. The principal argument against the bill was made by J. M. Stoddard, of the Cook & Stoddard Co., Washington agents for the Locomobile, White, Cadillac and Baker, while Representatives Ames and Gillett, both of Massachusetts, also pointed out some bad features of the bill. Representative Sims appeared in favor of his pet measure and made one of his customary fiery speeches against the automobile. It was evident from the start that the sympathies of Senator Gallinger, chairman of the committee, were entirely with the automobilists, and he gave them every encouragement in their strong fight.

Mr. Stoddard took up in detail the various provisions of the bill and made a forcible plea against it. He said if this bill was enacted into law many arrests would be made on account of technical violations of the law, which would be a hardship and an injustice to the automobilists. "The necessity of legislation in connection with automobiles is admitted and recognized by automobilists as much as by nonautomobilists," he said, "but in justice to ourselves I must say that experienced automobilists who are fair and open-minded are far better qualified to draft such a law and one that will be practical in its workings than those who know practically nothing of the automobile. Analyzing the situation, we find 90 per cent of the automobilists throughout the country are careful in the use of their cars on the public highway, and they need no restraints of law. The 10 per cent who bring us all into disrepute are composed for the most part of two classes—the rich, reckless driver, to whom the imposition of a fine is no hardship and is forgotten 5 minutes afterward, and the reckless, daredevil professional chauffeur, who seems to delight in seeing how spectacular he can be in the handling of his car."

The speaker pointed out that no law can be effective that does not have special regard to these two classes of offenders, and he believed the best way to reach them is to revoke their licenses. He thought it should be in the power of the court, after the third offense within 1 year, to revoke for a period of from 15 days to 3 months the license of the offender. For the rich owner of a car to be deprived of the use of his car would be most humiliating, while in the case of the professional chauffeur his means of livelihood would be taken from him for a period long enough to teach him a lesson.

Touching on the speed limitations in the bill, Mr. Stoddard pointed out that to slow down to 8 miles an hour on all intersections of streets would be impracticable, tending in time to ruin the finest car and to make the brakes ineffective. By means of a speedometer he illustrated to the committee the impossibility of an automobilist traveling 15 miles an hour to drop to 8 miles at every intersecting street. The speedometer would register 10 miles, even though he slowed down to 8, and the automobilist would be technically violating the law and subject to arrest. At this point Senator Gallinger said a man might as well give his car away if he has to go at less than 12 miles an hour. Mr. Stoddard referred to the fact that the Sims bill provides a fine of $5 to $50 for the first offense, to which the automobilists had no objection. For the second offense the fine is from $10 to $100, with imprisonment from 5 to 30 days, at the discretion of the court, while for the third offense within 1 year the fine is from $50 to $250, or imprisonment from 30 days to 6 months. He said the minimum fine for the third offense should be reduced from $50 to $5, so the court could determine whether the violation of the law had been technical. For persistent violation there should be a revocation of the license for a time, he said. The speed outside the fire limits should be restricted to 15 miles an hour, around corners at 6 miles and not 4, as provided for in the pending bill, and to 8 miles over car tracks and not 5 miles.

Stoddard closed his argument by submitting some figures prepared from the police records for the calendar year 1905, which showed that during that period there were 1,127 accidents caused by horse-drawn vehicles and trolley cars, resulting in injury to 503 persons and the death of 22. During the same period there were ninety-four automobile accidents, resulting in injuries to twenty people and the death of one person. In the latter case the automobilist was promptly exonerated.

Representative Sims started off with the remark that he had no personal interest in the bill and introduced it merely because he had been urged to do so by many persons. He said he hoped the day would come when automobiles would become so cheap everybody might have one. He then launched into a fiery argument against what he termed the reckless use of the streets of Washington by a lot of automobilists who seemed to think they owned the earth. His argument failed to make much of an impression.

Representative Gillett told the committee he had been an automobilist for several years, and while he thought the pending bill had some good features, it likewise had some bad ones. He advocated the limit be fixed at 6 miles around corners, 8 miles across car tracks and 25 miles an hour outside the fire limits. His colleague, Mr. Ames, spoke along similar lines.

At the conclusion of the hearing Chairman Gallinger intimated to Mr. Stoddard that he would be pleased to have him draw up a bill along the lines indicated in his argument and he would have it introduced in the senate in lieu of the Sims bill. This is gratifying to the automobilists and they will frame a bill that will meet with general approval, not only of the automobilists but of most of the members of the senate.

FOR L'HOMMEDIEU BILL

New York, April 3—There will be another hearing on the pending automobile bills before the committee on laws at Albany tomorrow. The clubs of the New York state association will present a united front in favor of the L'Hommedieu bill, the Automobile Club of America, in view of its pledge and obligation to stand by its fellows in the association, having receded from its flirtation with the advocates of the Stanley bill, providing for a state commission. It now seems probable that the L'Hommedieu bill will pass and be the only motor car legislation enacted at the present session of the legislature. The L'Hommedieu bill calls for a registration fee of $1 per each car and a tax of $1 per each 500 pounds of weight. The associated clubs last year placed themselves on record as being willing to submit to a reasonable tax provided that the receipts therefrom be devoted to the maintenance of the highways, which is so provided in the present bill. An effort is to be made to have all fines imposed and collected for violations of the automobile laws go to the same fund.

AFTER FINE HIGHWAY

Pittsburg, April 2—Local automobilists are greatly interested in the project now being agitated by the state highway department to build a main state road across Pennsylvania between Philadelphia and Pitsburg. The prospective highway would be 248 miles long by the old direct stage route, which is 70 miles shorter than the shortest railroad line between the two cities. It is estimated the road could be opened in 18 months as projected. It would be a macamadized turnpike all the way, which would afford a banner route for automobiles between the two great cities of the Keystone state. By driving their cars at a legal maximum speed they could breakfast in Pittsburg and dine in Philadelphia. The route of the proposed road is as fol-

lows: From Philadelphia to Paoli, 20 miles by way of the old Philadelphia and Lancaster turnpike; from Paoli to Lancaster, from Lancaster via Columbia to York, and thence to Gettysburg, where junction is made with the old turnpike from Baltimore, 52 miles from Gettysburg; thence across South lake, across South mountain; thence into the Cumberland valley at Chambersburg, where the route joins the Harrisburg turnpike. From Chambersburg Sideling hill, Tuscarora mountain and others, along a 50-mile line to Bedford, the route then crosses the main Allegheny range, the Somerset plateau, Laurel Hill mountain and into Ligonier valley; thence through the gap in Chestnut ridge, through Greensburg, Irwin and Turtle Creek and into Pittsburg, 90 miles from Bedford. In addition to this direct route the Northern turnpike from Pittsburg eastward via Blairsville, Ebensburg, Hollidaysburg, Huntingdon, and down the Juniata valley to Harrisburg and into Lancaster, may be taken up after the main road is completed. The estimated cost of this main state highway is $10,000 a mile, or a total of $2,500,000, three-fourths of which will be furnished by the state.

ITALIAN EVENT A BIG ONE

Paris, March 23—The great strides made this year by Italian constructors and the very excellent showing of Italian cars in recent automobile events are making a strong impression on the French public. It is recognized here that in 2 years Italy has risen to the rank of at least second place among nations encouraging the industry. Thus, the Milan gold cup competition is receiving a great deal of attention here, and French makers are determined to make a great effort to retain the reputation of their products. The richness of the prizes offered by the Italian authorities is in itself a great inducement. For instance, in the first series, the prize is a gold cup worth $4,000 and $5,000; second prize, a gold plate and $1,200; third prize, $1,000. Among the special prizes is the city of Milan cup.

SUPPORT FOR THE SCOT

London, March 23—In pursuance of its new policy to actively handle everything connected with the British motor trade, the British Society of Motor Manufacturers has asked its members to furnish them with confidential views on the Scottish reliability trial, which has been fixed for June next. This trial has always been one of the most popular functions of the automobile year. The Scotchmen have shown marked ability and high success in carrying through their big event, but in order to relieve the motor manufacturer as far as is advisable of the heavy financial strain and dislocation of business which these functions entail, the society has taken the view of its membership on this particular item. The verdict has been entirely in favor of the Scotchmen.

TO RESTORE OLD ROAD

Congress Asked for $30,000 to Be Used on 100-Mile Cumberland Highway in Maryland

Washington, D. C., March 31—What is regarded as one of the most important good roads bills ever introduced in congress was presented this week by Representative Pearre, of Maryland, authorizing the restoration of the Cumberland road by the federal government and providing for its reconstruction and maintenance. It carries with it a preliminary statement setting forth a brief history of this famous roadway, which was, under an act of congress approved by President Thomas Jefferson on March 29, 1806, and subsequent acts, constructed by the government from Cumberland, Md., through the states of Maryland, West Virginia, Pennsylvania, Ohio and Indiana, and surveyed through Illinois to the capital of Missouri. By the act of March 29, 1806, and thirty-three subsequent acts of congress between 1806 and 1844, the sum of $6,824,919 was expended by the federal government in the construction and maintenance of this great public highway, "which carried thousands of population and millions of wealth into the west, and more than any other material structure in the land served to harmonize and strengthen, if not save, the union." The states to which the road was surrendered have failed to keep it repaired as required by the acts of surrender.

This being the case, Representative Fearre proposes that the president of the United States be authorized to appoint a commission of three or more disinterested persons to examine into the present condition of the Cumberland road in the states above mentioned and report upon the same to the president, together with the probable cost in each state of putting the same road into first class condition as a macadam highway. An appropriation of $30,000 is provided to enable the president to meet the expense of such inquiry.

The bill then provides that upon the application of the proper authorities representing the states already mentioned, or either of them, the federal government shall loan to such states, or either of them, for the rebuilding and construction of this national highway a sum not to exceed $10,000 per mile without interest, in payment for actual work done, providing the highway is repaired and constructed under the supervision of the proposed commission and according to specifications furnished by it. It is also provided that one-twenty-fifth part of the money received from the federal government and expended upon the road be each year returned to the federal treasury by each state receiving the same until the whole amount shall have been returned. To the secretary of the treasury is delegated the task of making all the necessary arrangements with the states respecting the proposed loan. The bill also requests the president of the United States to lay before congress at certain times a statement of all proceedings under the proposed law.

The restoration of the Cumberland national highway would be the greatest boon to automobilists, giving them a macadam road of more than 1,000 miles in length, passing through a country that is not only rich in historical interest but containing scenic features that are unsurpassed. It would also serve to give the good roads propaganda a decided impetus and serve as an object lesson of the benefits to be derived from the construction of a good road. The Pearre bill is deserving of all the aid and influence the automobilists can give.

NEW FREE ALCOHOL BILL

Washington, D. C., March 29—With a view to overcoming the objections that were raised against the several free alcohol bills that have been occupying the attention of the house committee on ways and means for some time past, as set forth in detail in MOTOR AGE, Congressman Payne, chairman of the committee, has presented to congress a new bill on the subject. It provides that 3 months from its enactment domestic alcohol of such degree of proof as may be prescribed by the comsioner of internal revenue and approved by the secretary of the treasury, may be withdrawn from bond without the payment of internal revenue tax, for use in the arts and industries, and for fuel, light and power, provided such alcohol shall have been mixed in the presence and under the direction of an authorized government officer, before withdrawal from the bonded warehouse, with denaturizing material suitable to the use for which the alcohol is withdrawn, but which destroys its character as a beverage. The character and quantity of said denaturizing material and the conditions upon which said alcohol may be withdrawn free of tax are to be prescribed by the commissioner of internal revenue, who shall make all necessary regulations for carrying the proposed law into effect. There are a number of provisions in the new bill to safeguard the revenue.

LOCAL SHOWS FAVORED

Chicago, March 31—Local shows in Chicago and New York are favored by the American Motor Car Manufacturers' Association. At the monthly meeting of the committee of management held yesterday in General Manager McMullen's office a resolution was unanimously passed favoring the holding of such shows which the committee believed should be operated and managed by the local dealers' associations in those cities. The Chicago dealers are much taken with the idea of a local show and are quietly investigating the possibilities. They believe such an exhibition would be the means of bringing business.

GROUT CAR IN TRIALS

Steamer Given Fast Workouts on Coney Island Boulevard Before Going South

New York, April 3.—The Grout steamer, racer, which was a winner at the last Worcester hill climb and of whose sprinting possibilities there has been considerable favorable conjecture, was given a tryout on the Coney Island boulevard, when Henri Fournier first set the mile record at 51 4-5 second with his Mors, at daylight Sunday. Piloted by Harry Maynes, with Ira Hulitt as mechanic, timed by Alex Schwalbach, of the Long Island Automobile Club, and T. K. Hastings, of the Brooklyn Motorcycle Club, and in the presence of quite a gathering of motorists, it covered successive half miles in 20 1-5 and 21 3-5 seconds, following a warming up spin of a quarter of a mile, which netted 10 seconds flat. On the second ½-mile trial a pipe broke, necessitating a slowing down. Today's trial was preliminary to the car being shipped this week to Atlantic-Pablo beach, when it will try for the records and compete in the races of the tournament.

The Grout car is of conventional appearance, its body resembling that of a four-cylinder gasoline car. It is fitted with two cylinders, each 4½ by 5½ inches, and has two boilers, each capable of 800 pounds pressure, which in the aggregate is said to be double the power of the Stanley car driven by F. H. Marriott when it scored the 28 1-5 seconds mile at Ormond last winter. Only 400 pounds pressure was used today. The car has a wheel basis of 112 inches and is driven by a single chain.

Important developments are expected from the meetings of the A. A. A. directors and the racing board, which will be held in this city on Thursday. Samuel Walter Taylor's wild attacks on the former racing board and his innuendoes that ex-Chairman Morrell's action in throwing out the Haynes, Thomas and Royal cars was influenced by his holding stock in the Locomobile Co. of America, declared by Mr. Morrell to be untrue, which appeared recently in his paper, The Rider and Driver under such lurid titles as "Turn the Grafters Out," have reacted against him, not only in bringing about a very unanimous demand that he resign, but in Chairman Thompson declaring his intention of asking the former chairman to serve on the new board. Mr. Thompson pronounces Mr. Taylor's conduct as unwise and indefensible and denies that his appointment was at all a personal one. He says it was prompted by a favorable impression made by him in a speech at the A. C. A. dinner of 1905, arguing for friendly relations and coöperation between horsemen and automobilists.

Secretary Gorham has arrived from Chicago to attend the meeting of A. A. A. directors tomorrow in the absence of President Farson and Vice-president Hotchkiss. Second Vice-president Spear will preside. Chairman Deming, of the tour committee, will not attend, either. He has written thirty clubs asking for nominations of associates. No Glidden tour action will be taken until the committee is complete. William K. Vanderbilt, Jr., who arrived from Europe today, denies he has ordered a six-cylinder Mercedes, although he admits he had one under consideration. In his search for a racing car he says he has also investigated other makes. It seems certain he will at least be represented by a car in the race, even if it is driven by a hired pilot. A guess is being made that the car will be of American make, on the ground that it would be bad taste for him to participate in an attempt to wrest this cup from this country. The cup, by the way, he says, is now in possession of the Automobile Club of France.

RESULTS AT CANNES

Paris, March 20—The meeting at Cannes was a success from the automobile standpoint, although the motor boat end of the card was somewhat of a fizzle because of the heavy seas that prevailed. In this Ambro won in class 1, Enrica in class 2 and Titave in class 3. Three of the boats capsized and four quit. The water events were finished and the land card started by the 13th. The first of these was a consumption trial, the winner being the one going the greatest distance on 1 litre or 1¾ pints of gasoline. The results were as follows:

Name	Car	H. P.	Miles	Time
1—Mounier,	Renault	8	6.5	:28
2—Gallice,	Clement	12	6.4	:29
3—Quimson,	Gladiator	10	6.3	:22
4—Loubet,	Peugeot	18	5.4	:23
5—Lacour,	Peugeot	18	4.7	:15
6—"Autocar,"	Bollee	45	2.8	:10
7—Grigg,	Daimler	35	2.7	:13
8—Liegeard,	Peugeot	18	2.68	:09
9—"Autocar,"	Hotchkiss	25	2.34	:09

A hub brake trial resulted in Mounier in the Renault stopping in 4.5 yards. Grigg in a 35-horsepower Daimler won the flying kilometer in 40 seconds and also took the hill climbing test up Antibes hill, a gradient about one in five. The car carried seven persons, including the driver. This was on the 15th. A 25-horsepower Hotchkiss won the 90-kilometer trial in 56 mintues 54⅘ seconds. Sunday there was a gymkhana and on Monday a paper chase. The meeting came to an end tonight.

OPEN AIR SHOW POPULAR

New York, April 3—A flood of requests for space at the coming open air show at the Empire City track was reported at last night's meeting of the New York Automobile Trade Association. Blank contracts for space will be sent out shortly. Suggestions a-plenty for various utility tests, which are to be the chief features of the carnival, were made and discussed by the New York tradesmen.

TO OMAHA FOR SHOW

Megargel and Mountaineer, Out of the Wilds, Enjoy Run From Trinidad to Denver

Denver, Col., March 29—After waiting a couple of days for the rain to cease, the Reo Mountaineer, with Weed tire chains attached to both rear wheels, started out for Omaha, where I hope to arrive in time for the automobile show, opening there on April 4. This means a quick trip, and to make it I shall have to average about 120 miles a day. Under ordinary conditions this would not be a very hard task, but just at present the South Platte is a raging torrent and has overflowed all the lowlands for miles on either side. Bridges are also reported as being down or unsafe.

The trip from Trinidad to Denver proved as fine a stretch of automobiling as anything I have encountered since leaving the oiled roads of western California. 'Tis true we ran into snow some 50 miles out of Denver that required considerable shoveling to get the Reo Mountaineer out and going once more, but that happened owing to our taking a road, little used, in an effort to run from one well traveled highway to another a couple of miles further east. The snow was some 4 feet deep and reminded both Fassett and myself of the winter spent in trying to get across the San Francisco and Madrid mountain ranges of Arizona and New Mexico. Both Catron and McKane prove good shovelers and in half an hour we were once more bounding over good hard highways at 20 to 30 miles an hour.

We came into Denver so fast that we missed the escort of automobile enthusiasts that had set out to meet us at Littletown. Catching sight of the rear guard as it passed us on a parallel road, we hailed and after waiting for the advance guard to return we once more headed for the capital, some two dozen machines being in line, President F. L. Bartlett, of the Denver Automobile Club, E. Linn Mathewson and H. B. Robinson leading.

The battered appearance of the old Reo Mountaineer called forth a number of remarks, the ragged edges of smashed mud guards, bent and twisted lamps, well-worn steering gear, cable and windlass and Winchester rifle, which we always keep ready for business in its holster at my right, all coming in for their share of attention.

All the way from Trinidad to Denver, about 260 miles by road, we were extended a hearty welcome. Every automobilist seemed to be on the lookout for the Reo Mountaineer, and the four occupants of the little car were simply swamped trying to answer the numerous questions asked as to roads, and weather in New Mexico and Arizona, ours being the first car to traverse these two territories

We are leaving Denver with a light load. Our passengers have left us, McKane re-

turning to Santa Fe, and Catron taking train for New York. Our supply of food and blankets have been expressed, and probably will not be needed again during the remainder of the trip east. We have discarded frying pan and coffee pot, and don't even have to carry extra cans of gasoline, as we can purchase it every 50 to 75 miles and usually oftener. It's nice to be within civilization once more, and although I've met many very pleasant people through Arizona and New Mexico, I don't think I'll venture down that way in an automobile again. If I do it will be in the good old summer time, not in the winter.—PERCY F. MEGARGEL.

RECORD-BREAKING ENTRY

Atlantic City, N. J., March 31—Already assured of more entries than any meet ever held under the jurisdiction of the American Automobile Association, the annual event of the Atlantic City Automobile Club, to be held on the Ventnor beach track on April 25, 26 and 27, will bring to this city nearly every driver of national reputation. There were only twenty-one entries for the recent Ormond meet, and although the entries of the local affair do not close until April 17, no less than twenty-eight have been received for the 3 days. One of the most interesting contests of the meet will be a match race between Tom Cooper and Eddie Bald, former cycle champions. The former will drive a 40-horsepower Matheson and the latter a 40-horsepower Columbia. Both are entered in other events. The contest for the women's championship will be between Mrs. Cuneo, who carried off the honors of last year's meet, and a Brooklyn woman, who will drive a Franklin racer. Mrs. Cuneo will bring her White steamer and a Maxwell car. Montague Roberts, with a six-cylinder Thomas car, the same he drove in the Vanderbilt cup races, is here to try out his machine on the Ventnor beach, which is to be graded at once. Several other drivers will arrive during the week to test their machines on the smooth sandy stretch. The Pennsylvania railroad is arranging to carry passengers.

TWO NON-STOP TESTS

Chicago, April 3—Two successful non-stop runs have just been completed in Chicago. A model S 26-28-horsepower Oldsmobile, sent out by the Githens Brothers Automobile Co. under the direction of Paul Henderson, put up a new mark by going 100 hours instead of 1,000 miles. The engine, it is said, was not stopped once, although Henderson was arrested once because of a sign carried on the boulevards announcing the mission of the car. In the 100 hours the Oldsmobile traveled 1,115 miles, using 85 gallons of gasoline and 3½ gallons of oil, giving a mileage between 11 and 12 miles per gallon of gasoline. The other non-stopper was a four-cylinder Frayer-Miller, sent out by Jerry Ellis, which went 60 hours without mishap at a good rate of speed.

SHOW ON IN TORONTO

Twenty-one Different Makes of Automobiles are Being Displayed in Granite Rink

Toronto, March 31—Ten thousand people were present during and after the opening of Toronto's first show at the Granite rink yesterday afternoon. From early in the afternoon until late at night the handsomely decorated rink was crowded. Not only citizens of Toronto turned out in full force, but visitors from Montreal, Ottawa, London, Windsor, Kingston, Buffalo, Cleveland, Detroit and other American points were present.

The formal opening of the exhibition took place at 3 o'clock, when Lieutenant-Governor Mortimer Clark, accompanied by Mrs. Mortimer Clark and Miss Clark, entered. The party was conducted to a raised platform, prettily embellished with flags, where an address of welcome was presented on behalf of the Toronto Automobile Club. The cars on exhibition are the Darracq, Packard, Pierce Great Arrow, Stevens-Duryea, Russell, Ford, Oldsmobile, Cadillac, Humber, Royal Tourist, Winton, Thomas, Stoddard-Dayton, Rambler, Pope-Toledo, Pope-Waverley, Peerless, Star, Marion, Clement-Bayard and Napier. The following is a list of the exhibitors in the motor boat and accessories building: Diamond Rubber Co., of Akron, Ohio; Gray & Davis, of Amesbury, Mass.; Dunlop Tire & Rubber Goods Co., Toronto; S. F. Bowser & Co., Fort Wayne, Ind.; Franco-American Automobile Co., Montreal; Goodrich Rubber Co., Akron, Ohio; Nicholls Bros., Limited, Toronto; Majestic Polishes, Limited, Toronto; Albert Bell Engine Works, Dunnville, Ont.; John Miller & Sons, Montreal; Mackid & Connor, Toronto; Defiance Iron Works Co., Chatham; Rubber Tire & Wheel Co. Agency Co., Montreal; Berlin Electrical Mfg. Co., Berlin, Ont.; Canadian General Electric Co., Toronto; James W. Pyke & Co., Montreal; Jones Speedometer, New York; Chapman Ball Bearings Co., Toronto; the T. Eaton Co., Toronto; Croftan Storage Battery Co., Toronto; Toronto Gas & Gasoline Engine Co., Toronto; Warner Instrument Co., Beloit, Wis.; Carbons, Limited, Toronto; Canada Cycle & Motor Co., Toronto Junction; Queen City Oil Co., Toronto; Canadian Lock Nut Co., Toronto; Continental Caoutchouc Tire Co., New York; Brownell-Trebert Co., Rochester, N. Y.; Buffalo Gasoline Motor Co., Buffalo.

The show itself is a revelation to those who are not conversant with the rapid progress of the industry during the past few years. Many automobiles have been imported from the United States, while the Canadian-made machines are conspicuous for their fine workmanship. Several French and English machines are also shown, and they attract much admiration. Sixty different types of automobiles are shown, comprising twenty-one different makes, all of 1906 models. No two are alike. The value of the cars range from $500 to $7,500 and more, and the directors state that the buildings are not large enough to furnish room for all the companies who desired to exhibit.

The display of motor boats and gasoline launches is also of considerable magnitude, and owing to the advent of spring, much attention is paid them. There are also displays of motors, motor fans, autometers, and parts of machines.

TALKS ON GLIDDEN TOUR

New York, April 4—Special telegram—At the regular monthly meeting of the N. A. A. M. executive committee held today the contest committee reported that after full consideration of the rules of contest in this and other countries, it had become convinced of the impossibility of making acceptable rules to select a winner from cars of every conceivable construction, weight, power, speed, seating capacity and price on machine, except in a speed contest. It had, therefore, been unable to make any definite recommendation on rules for the Glidden tour as requested by the American Automobile Association. There has been a joint meeting of the committees of the National and the American Automobile Associations, but without arriving at any satisfactory result. In relation to the contest generally, the committee recommended that the association consider for approval during 1906 only such contests as are conducted by the American Automobile Association. In relation to the show resolution adopted at the board meeting and which provided that no member of the association should take part in local shows it was decided that branch houses shall be considered in the same light as dealers, so that if a branch house manager desired to take part in a local show no penalty will attach to the manufacturer.

TURN DOWN HILL CLIMB

Boston, April 2—Special telegram—At the meeting this afternoon the directors of the Bay State Automobile Association voted not to hold a hill-climbing contest on Patriots' day, it being understood that the Massachusetts Automobile Club will hold its annual event then. The runs and tours committee was authorized to arrange for the holding of a New England tour in conjunction with a New York association, providing it did not conflict or interfere with the annual Glidden tour.

EXPORT TRADE INCREASING

Washington, D. C., March 29—The export trade in automobiles, which began so auspiciously during the first month of the new year, showed even greater gains during the second month of the year, when cars and parts to the value of $332,713 were exported, as compared with $280,137 in February a year ago.

LEGAL LIGHTS AND SIDE LIGHTS

NOT CHAUFFEUR'S DUTY

In the case of Berman et al. vs. Schultz, it has been decided by the supreme court of New York that it is not the duty of a chauffeur, before leaving an automobile in the street, while temporarily absent delivering goods in an adjoining house, to chain the machine to a post, or in some other manner fasten it so that it would be impossible for it to be started by the act of a third person. The court says the law did not impose on the defendant a degree of care that made the starting of the machine impossible. "It was the duty of the defendant to exercise such care as a person of ordinary prudence would use under the circumstances." The chauffeur testified that on leaving the automobile he threw off the current, pulled back the lever and applied the brake. The machine was started by the wilful act of two boys, and collided with plaintiff's wagon. The court held that the act of the boys was the proximate cause of the injury, and the owner of the machine was not, therefore, liable.

MISSOURI LAW SUSTAINED

The automobile law of Missouri, passed in 1903—Laws of 1903, page 162—has been construed and sustained by the St. Louis court of appeals in the case of the State vs. Cobb. The court placed a strict construction on section 4, which will be extremely burdensome on automobile owners of that state. Section 4 of the act provides: "Every person, corporation, company or co-partnership, desiring to operate any automobile propelled by steam, gasoline or electricity or any other motive power, shall obtain a license from the license commissioner, if in a city having a commissioner, or if desired to operate same in any county outside of the incorporated limits of any such city, or any of the public highways, streets or roads of this state, shall obtain a license from the county clerk of such county authorizing the operating of such automobile, and shall pay to the license commissioner, if in a city having such commissioner, or if in any county to the county clerk of such county, the sum of $2 per annum for each automobile so operated and run on the streets, roads and highways, which said sum shall be paid into and become part of the general road fund."

The court says a license has only a local application and affords no protection beyond the boundaries of the jurisdiction of the officer who issues the license. A license to be effectual throughout the state would be one issued by a state officer expressly authorized thereto by an act of the general assembly, or by a county officer under some broad act giving to such license force and effect throughout the boundaries of the state. "No such provision is found in the act in respect to automobiles, and we are of the opinion that an automobile owner is required to take out a license in each and every county over whose roads he desires to run his automobile," the court says.

STRINGENT OHIO LAW

The Sawicki bill, which nullifies all existing automobile regulations and provides that the secretary of state impose a license on every machine in the state, further requiring that every motor vehicle shall be registered, has passed the state legislature of Ohio. All machines up to 30 horsepower are taxed $5, an additional tax of $3 for each additional horsepower also being added. Hired chauffeurs must pay a fee to the state of $20. Mention is also made of speed, no machine being allowed to run faster than 1 mile in 6 minutes in closely-built sections or cities, 1 mile in 4 minutes in suburban parts, and 1 mile in 3 minutes in the country. The first offense passes with a penalty of $25, the second with $50, and the third with $100 or imprisonment for 10 days.

NEGLIGENCE PROVED

In Spina vs. the New York Transportation Co. the supreme court of New York held the evidence was sufficient to support a verdict for the plaintiff, who was injured by collision with an automobile at Eighteenth street and Fifth avenue, New York. Spina testified he was going north on the left side, that he looked east, but did not observe any wagons, and that he had taken three steps into Eighteenth street in order to cross, when he was struck by the automobile. He testified he did not see the automobile until it ran into him, and which came south along the right side of the avenue and swung into Eighteenth street in a westerly direction. The court held the case was fairly presented to the jury, and that it could not, under all the circumstances, be said as a matter of law that the plaintiff was, or the defendant was not, at fault. The judgment for Spina was affirmed.

MASSACHUSSETS MEASURES

With the shows out of the way and the opening of the riding season at hand, the Massachusetts motorist is paying renewed attention to automobile law, present and prospective. Hearings on the measure have been held without number, and the roads and bridges committee has gone over the matter most thoroughly, but as yet has failed to make known any decision it may have arrived at. It is difficult at this time to conjecture as to what the agitation of the past few months will amount to, yet there is a general impression among the motorists and those who are to be found beneath the gilded dome of the state house that the changes, if any, will be more or less favorable to the motorists. Some twelve or more bills have been presented to the committee, and all have been given hearings. Of course, it is impossible to report favorably on all of these bills and consequently it is believed a compromise measure will be recommended. There are, however, two contests in claims, one made by the motorists for increased speed, and the other made by the opposition for more stringent speed limitations. Providing they are given a 20-mile an hour speed limit, the motorists are willing to concede more drastic punishment for reckless or fast driving, while the opponents want both a reduction of the speed limit and more drastic punishments. The committee is now considering the draft of a compromise bill which includes the so-called Keyes bill, increasing the speed limit to 20 miles an hour, with a provision that in order to secure convictions for overspeed; motors must be timed for a full quarter of a mile, the defining of the thickly settled or business part of a city or town, the punishments for violations of the law which permit the placing on file of the first and second offense of the unintentional violation of the law, or violations where extenuating circumstances are shown, and the forfeiture of the person's license on the third offense. In the compromise it is proposed to punish those driving an automobile with wanton recklessness so as to endanger the lives or safety of the public with a fine not exceeding $100 or imprisoment not exceeding 6 months. These are the main features of the compromise. The time set for the presentation of the committee's report is April 4, but it is understood the committee will request further time. The Massachusetts State Automobile Association is likewise favorably disposed to an extension of the time for reporting, as it is anxious to take the members out on the

road and prove to them the different rates of speed, the ability of an automobile to stop when going at different speeds and to demonstrate that the present law is such as to bring particular hardships on all drivers of motor vehicles.

BECOMING SENSIBLE

The predicted break in the enemy's lines was made last week at Trenton, N. J., when Assemblyman Perkins, the hope of the automobilists, and Senator Frelinghuysen, the maker of automobile bills, came together to frame up a basis of agreement which might permit of the passage of a bill which would suit both sides. A number of modifications were agreed on, and these and numerous others to be put forward by the opponents of the bill in its present shape, will be incorporated in the measure when it comes up for final passage. It was definitely agreed to reduce the minimum age of operators from 18 to 16 years. The fee for cars will be reduced from $5 to $1 and $2, according to power. The state commissioner is to be given power to issue permits to learners to operate cars for a period of 3 months when accompanied by a regularly licensed driver. The photograph bugaboo is to be replaced by a provision requiring the holder of a license to sign it, and when it is necessary to show it to an inspector he must write his name in the presence of that official to determine if he is the legal possessor of the license. Registration numbers are to be made stationary, one placed on the front of the car, the other on the rear, and neither must be more than 15 inches from the ground. A bad feature of the arrest clause is apparently remedied by an agreemnt to so amend the law that whenever an automobilist is arrested for any violation of the law he may go before a magistrate in the county in which he is arrested, no matter where the offense may have been committed; as it reads at present the culprit must be dragged back to where the offense is committed before he can begin a defense. Another change agreed upon is that appeals from decisions of the magistrate's court may be made to the common pleas court—a new provision and an important one to the automobilists. It is further proposed that drivers of cars be compelled to decrease its speed to a mile in 5 minutes when within 200 feet of a horse on a public road. Another change gives inspectors the right to demand a peep at an operator's license at any old place and time, failure to comply to be taken as evidence that the law is being violated and rendering the driver liable to its provisions. A little ginger was injected into the proceedings last Thursday, when a new bill was introduced making it obligatory to display on "all vehicles on the public roads" two lights between sunset and sunrise. The farmers look upon it as a comeback and are naturally nettled.

THE READERS' CLEARING HOUSE

IT JUMPS THE GAP

Nipomo, Cal.—Editor MOTOR AGE—Please inform me through the columns of the Readers' Clearing House if the electric current in passing from one point to the other on a spark plug merely fills the gap or if it jumps the gap. Some people say it fills the space and others that it jumps the gap. —J. F. West.

The current is momentarily stored through means of the coil and when the circuit is broken by means of the commutator or other form of interrupter, the tendency of the current is to keep on flowing, thus it jumps the gap. It stands to reason that in order to complete the circuit, as it does, or as it tends to do, it would be necessary to jump from one point to the other, else how could it get across?

REBORING CYLINDERS

Dallas, Tex.—Editor MOTOR AGE—I have a single-cylinder machine, the diameter of the cylinder being 5 inches. The cylinder has been badly cut—to the extent that it becomes necessary either to rebore it or to have a new cylinder. I prefer to rebore it, as possibly this will give me more power, but before doing so I should like to know how thick the cylinder wall should be to be absolutely safe. How much of an increase in power will the motor give if the cylinder is bored to be 5 7-32 inches in diameter, the stroke being 5 inches and the motor to run at 1,000 revolutions per minute?—Subscriber.

It all probability it would ruin the cylinder to take off 7-32 inch of metal, as it would leave the walls unsafe if common practice was followed in the construction of the motor. Ordinarily a 5-inch cylinder should have at least 9-32 inch wall, and 5-16 inch would be better. The makers of the motor would be able to tell exactly the thickness of the wall now if the inquirer does not know. If the walls were about 5-16 inch originally, it will be seen that it will be impossible to take off a cut of 7-32 inch. Besides, this would require new piston and new rings, which might have to be made to order to fit the larger size.

WEAR ON TIRES

Dundee, N. Y.—Editor MOTOR AGE—Can you tell me through the Readers' Clearing House which tire of an automobile wears out first? Also which one of the four wears the longest?—E. S. T.

Road observation shows that the rear tire on the right hand side suffers the greatest wear. A car is generally turned to the right in turning out in a narrow road. As a result the machine usually runs into a ditch filled with sharp stones, which cut the rubber. The tires on the left hand side thus remain on the road and do not get so much wear. In turning entirely around it is usually to the left, so that the right hand tires travel farther than those on the left side. The left front tire, therefore, would last longest.

EARLY TOURING

South Haven, Mich.—Editor MOTOR AGE —I am desirous of touring somewhat in New York. Can you inform me when the touring season usually begins there or what time it will begin?—A. B.

Short tours are in vogue at all times when the weather permits, but usually touring does not begin to any extent before June. It is of course at its height in July, August and September.

HILL CLIMB RECORDS

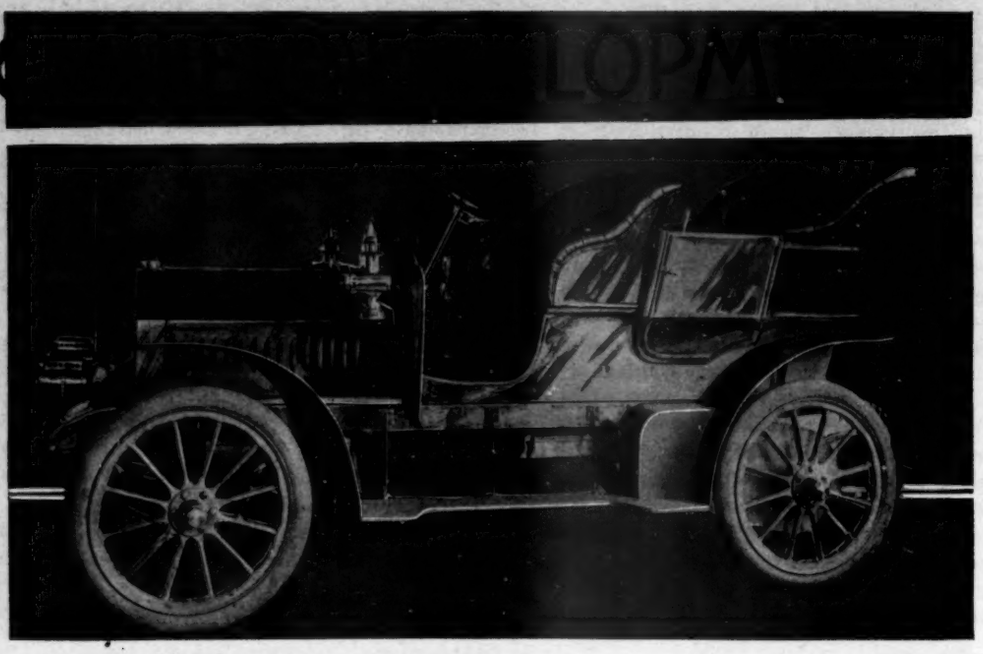
Mansfield, O.—Editor MOTOR AGE—Will you kindly give the following information: What was the best time made in the Mount Washington hill-climb of 1905, together with the name of the car; what was the times, respectively, of the Stanley steamer, White steamer, Pope-Toledo, Oldsmobile, Reo, Maxwell and Buick; did the Reo, Maxwell and Buick receive medals?—J. W. N.

The best time, regardless of class, was that made by the 60-horsepower Napier, which was 20:58 2-5. The other best times, in their respective classes, were as follows: Stanley steamer, 27:17; White steamer, 33:32 2-5; Pope-Toledo, 30-horsepower, 29:37 2-5; Oldsmobile runabout, 56:10 2-5; Reo, 52:35 2-5. The above were firsts. The Maxwell runabout was second in the event in which the Stanley did 27:17, its time being 51:41 3-5. The Buick did not show, according to reports. MOTOR AGE is not informed as to the prizes.

LICENSES IN ILLINOIS

Essex, Ill.—Editor MOTOR AGE—Please advise me through the columns of the Readers' Clearing House if a person needs a license to operate an automobile in a small town in Kankakee county, Illinois?—J. C. S.

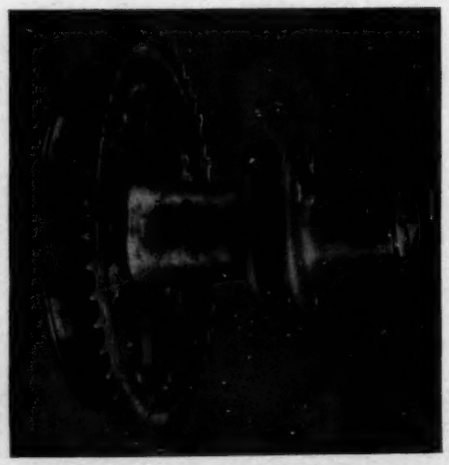
There is no law in the state of Illinois, as in other states, which requires an automobilist to provide himself with a license. Chicago and other cities, and possibly some villages and towns, require licenses, the regulations being through ordinances. MOTOR AGE knows of no county that has passed such regulations and does not believe a county has the power to pass them by the present constitution.



ALTHOUGH continuing the manufacture of its light runabout car, the Crawford Automobile Co., Hagerstown, Md., is devoting its attention this season to the manufacture of its 24-28-horsepower touring car, which contains many of the approved introductions of the present season, among them the use of ball bearings in the gearset, road wheels and jackshaft, yet retaining plain bearings for the crankshaft and camshaft. Double chain drive remains, but rubber covers are used for protecting the chains from dust. These give a somewhat heavy appearance to the back axle part when viewed from the side. The company claims these coverings are both dust and waterproof. Instead of the clutch type of gearset previously used, a selective sliding gearset is now fitted. The inverted cone clutch is retained.

Pressed steel side pieces of the mainframe are straight throughout and are suitably downwardly curved at each end where attachment is made with the spring hangers. Both motor and transmission are supported on an angle iron subframe which has brazed unions with the main frame. Front and rear axles are heavy tubular pieces; springs in front and rear are of the semi-elliptic type, being 1⅞ inches wide and 38 and 40 inches long respectively in front and rear.

In the motor four separately cast, vertical, water-cooled cylinders are used, having a 4¾-inch bore and stroke and a well finished interior. The valves are carried in ports on the left side. The exhausts are in the bottom of the ports and are opened by direct lift from a camshaft. The automatic inlets are located in the tops of the ports. Glancing at the motor design, the reader is struck with the method of supporting it on the subframe of the car. The two supporting arms on each side are replaced by a continuous web piece made integral with the upper part of the crankcase and having five vertical holes by which the casing is securely attached to the subframe. At each hole is a vertical web flange across the top of the supporting web and reaching to the side of the crankcase. Support of this class makes the motor rigid with the frame and eliminates the use of cross braces in the forward portion of the frame. Carrying the five bearings of the crankshaft in the top portion of the case allows of the bottom half serving only in the capacity of an oil pan and further results in the dispensing with side inspection ports in the upper part of the case. The crankcase is made small and of stepped design, the four cylinders being bolted on to the narrowed top part, which is equal in width only to that of the flanges on the base of the cylinders. Slightly below this the case widens and in this extension on the left is encased the camshaft and in the top of the right extension are four crankcase relief caps. The crankshaft is of the recognized four-throw type and runs on plain bronze bearings, five in all, giving it a total bearing length of 14½ inches. Each cylinder is made with an integral water jacket into which the water enters at the lower right side and leaves from the top right. A combined tank and radiator, with circulation pump and fan comprise the other cooling agents. Ignition is by jump spark, with current taken from storage or dry cells. On the dash is a four-vibrator coil, and the distribution to the cylinders is accomplished by commutator carried high above the tops of the cylinders and well to the rear. It is well out of the way of moisture or dirt that enters the bonnet. The commutator is driven by bevel gears off the camshaft. Lubrication is by pressure feed, there passing from the oiler leads to the cylinders and crankshaft. Within the crankcase a splash system is used. The carbureter is of recognized float feed design and is located on the left, connecting with the inlet valves through very accessible and short pipes. Control of the carbureter and spark are from the steering columns.



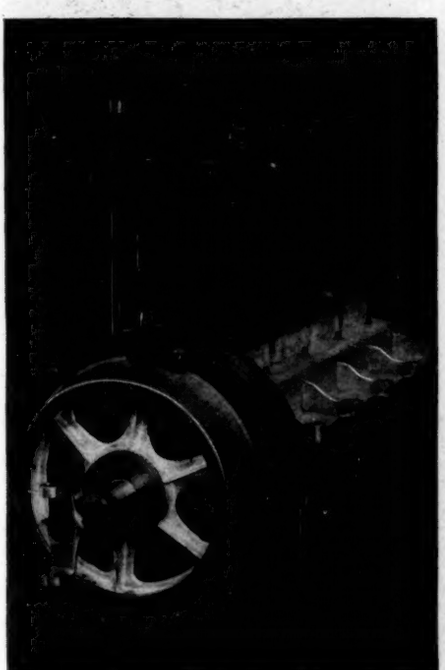
CRAWFORD REAR WHEEL HUB

On the rear of the crankshaft is carried a large flywheel to the rear face of which is bolted a flange cone ring. Within the flywheel and this ring is the cone portion of the clutch, the female portion being the flange ring. The coil spring for engagement is well enclosed and the use of a leather diaphragm makes the clutch dust proof. It is disengaged by pedal. Coupling the clutch with the gearbox, is a universal sliding joint. A ball end thrust is used in the clutch. Using the universal joint allows of the clutch being taken down without removing the gearset.

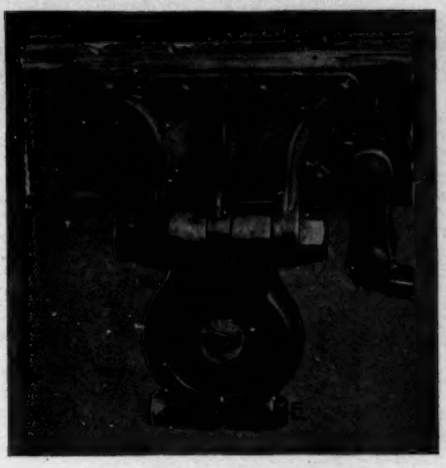
In the illustration of the top view of the gearset is shown its general layout. The reader first notices the use of six ball bearings, two retaining cages of which are shown at H, there being one at each end of the mainshaft, countershaft and jackshafts. Operating on the selective principle and affording three forward speeds and one reverse calls for the use of two sets of sliding pinions, one being the gear A operated through the shifting rod D and the other the pinion B operated by the shifting rod C. The gears are shown in the neutral posi-

tion. Thrusting the sliding gear B ahead so the dental face teeth on its forward side interlock with those on the gear next to it gives direct or high drive. Sliding it slightly back and meshing with the large countershaft gear offers the second speed. For the slow speed ahead and the reverse the sliding unit A is required, which is slid forward for the slow speed and moved back when reversing. The idler with which it meshes when reversing is not shown. Changes in speed are made by one lever working in the two slot quadrant scheme. The sliding gears on the main shaft are a square sliding fit; the aluminum gearbox is split horizontally across the center. With the top removed, the entire set is exposed for examination. Carrying the differential in the rear portion of the case makes the case slightly longer than usual, but this extra length cannot be taken as an indication of weakness, as the casing is practically in two compartments, there being a separate one for the differential. The main portion is strengthened by a cross web near its center. The support of the case differs from that of the motor in that four arms are utilized, there being two well to the rear, one in front at the left and another near the middle at the right.

The jackshaft is carried at each end on swinging brackets on the main frame sidepieces. The separate illustration shows the main frame B, to which is riveted a large bracket A. Hinged to the base of this bracket is the swinging bearing cage D, through the bolt C, permitting of an end swing but not any back or forward slide. The bracket D is split at the base, carrying the bolt E for adjustments so the bearings rings F can be locked in position or easily removed when dismounting the gearbox. The swinging bracket D insures against strains on the differential or bevels in the



END VIEW CRAWFORD MOTOR

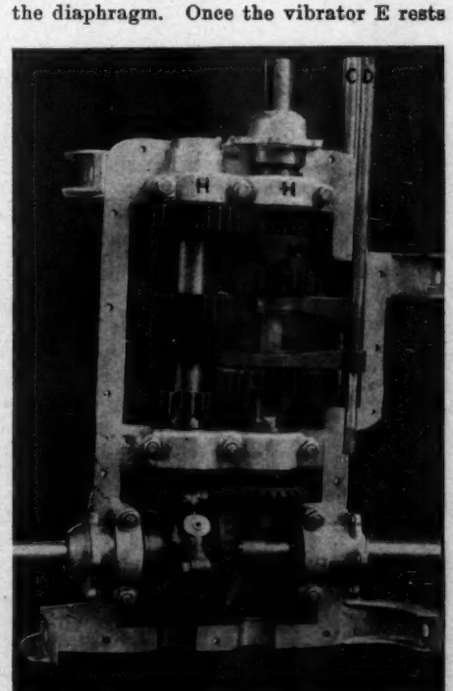


CRAWFORD JACKSHAFT BEARING

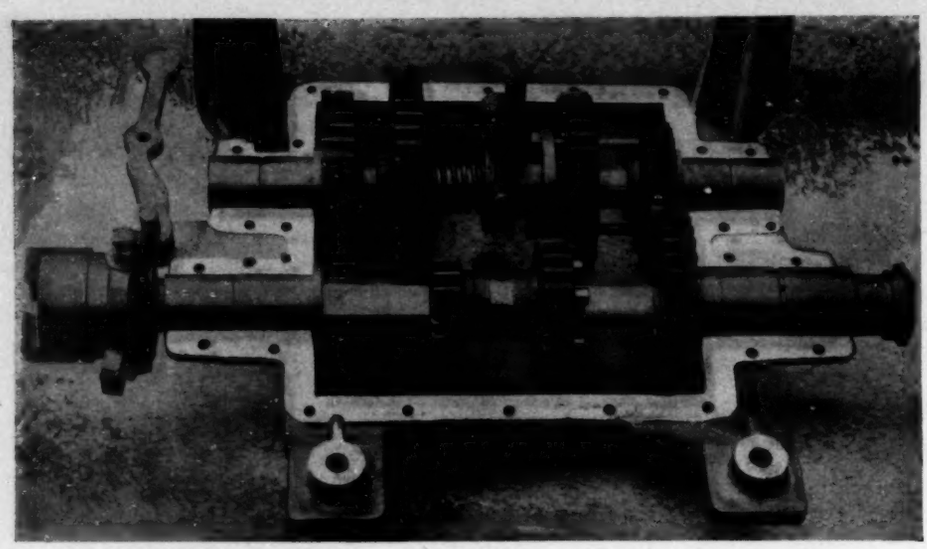
gearset should the frame pieces become bent. Transmission to the back wheels is by heavy roller chains which are carried very close to the framework of the car because of the use of a peculiar combined brake drum and sprocket. The hub has the usual provision A for receiving the inner ends of the wheel spokes and is continued inside in the form of a long sleeve C, which is supported on a separate roller bearing and has integral spokes to which is attached the brake drum D and to this drum is bolted the ring teeth E over which passes the chain. Using the long sleeve C carries the chain close to the side of the car and out of the way of the running board. Braking is through a double set of brakes, one of the regulation band type operating on drum wheels on the jackshaft and pedal applied, and the other set, of the same design, operating on the drums D on the rear wheels. The latter is lever operated. The road wheels are of the artillery style, 34 inches in diameter and carry 3½-inch clincher tires. Each is carried on ball bearings. Steering is through a wheel and pinion gear. The steering column is not of the multi-tube type but has the rods for the spark and throttle finger levers rising outside of it and to the right and left, the levers being just beneath the hand wheel. The body design is for five passengers, two in front in individual seats and three in the rear, the rear seat being 34 inches deep and 48 inches wide. A hollow metal dash of the cabinet variety is used. Portions of it are devoted to these cabinets and on the remainder are switch, and coil.

HORN WORKED BY ELECTRICITY

In its electric horn to be used in place of the regular bulb device on automobiles, the Vesta Accumulator Co., 1336 Michigan avenue, Chicago, has a novel product which produces a good clear tone and which has the advantage over the bulb horn of being sounded by means of an electric button on the steering wheel, a little pressure of the finger being sufficient. Of the two illustrations one shows the horn complete with the horn portion A of polished brass the same as used on bulb horns. In the rear of this is a hub portion C to which the horn part screws. At the end is the cover part P which conceals and protects the electric mechanism of the horn. The other illustration shows this cover P removed, exposing the electro magnet—the heart of the horn. The electro magnet consists of two spools D wound with fine, well-insulated wire, one end of which wire is connected at M with one of the wires B coming from a small storage battery which furnishes the current. The current coming through these wires passes through the spool windings and causes the soft metal cores within the spool windings to become magnets which at once attract the vibrator E which is drawn towards the spools. At the same time it strikes upon the end of the rod H supported on the framework G and surrounded by the coil spring carrying it and causing its other end to hit upon the fiber diaphragm F, causing it to vibrate. Within this diaphragm is a very sensitive metal diaphragm resembling that used in telephones. When the diaphragm F commences vibrating these vibrations are transmitted to the metal diaphragm which produces the sound. In order that the metal one be perfectly protected so that dust or other particles cannot get upon it and so interfere with its tone, a mica diaphragm is stretched across the inner end of the horn A so the metal diaphragm is retained between two other diaphragms. As soon, however, as the rod D strikes the diaphragm F the vibrator E leaves the piece N, to which one of the wires B is attached, and so the current is broken. Immediately the soft iron cores within the spools D cease to be magnets and so the vibrator falls back toward the piece N. The coil spring surrounding the rod H is sufficient to pull the rod away from the diaphragm. Once the vibrator E rests



CRAWFORD SELECTIVE GEARSET



BRENNAN THREE-SPEED SLIDING GEARSET

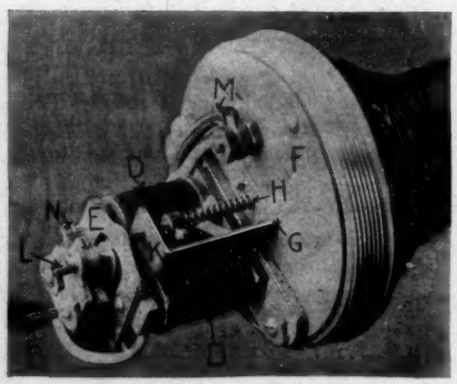
against the piece N the circuit is again completed, the cores in the spools become magnets and the rod H is forced against the diaphragm only to be drawn back the next instant by the current being broken as before and the coil spring doing the work. This back and forward movement of the rod H continues as long as the driver presses on the electric button on the steering wheel. L is an adjuster by which the vibrator can be adjusted close to or distant from the ends of the spools D and by means of which the tone of the horn can be varied. The horn is made for any size of car and is attached beside the bonnet, footboard or any other convenient place. The casing is made throughout from polished brass and the entire device is water and dust-tight so its tone is not interfered with by weather changes.

BRENNAN'S TRANSMISSION

A view of the Brennan transmission gearset with the top half of the case removed shows that the design of the gearset is standard in that both main and countershaft are in the same horizontal plane, with the case split in line with the bearings, permitting of both shafts being taken out with the top half of the case removed. The case is made of aluminum and has four dropped arms on the bottom half so it can be hung low in a car. All gears are made from high carbon steel, are hardened in oil and are of 1-inch face and six pitch, with the corners of all teeth rounded. Both bearings in the mainshaft, as well as those of the countershaft, are of special bronze. Those in the countershaft are capped over to prevent dust entering the case or oil leaking out. Gears on the countershaft are secured by a pair of keys and a sleeve surrounding the shaft between every two gears prevents their sliding on the shaft. The mainshaft is of square section 1⅜ inches to the side, and the diameter of the countershaft is 1⅜ inches. It will be noted that when the direct speed is thrown in that the front gear on the countershaft is automatically thrown out of mesh with the mastergear on the clutch shaft, leaving the countershaft idle on this speed. Direct drive is by the use of a series of pins carried in the forward sliding gear on the mainshaft, these pins entering a series of holes in the side of the mastergear. The remaining two forward speeds and the reverse require a transfer of the drive to the countershaft and then back to the mainshaft. It is built by the Brennan Mfg. Co., Syracuse, N. Y.

PITLESS TURNTABLES

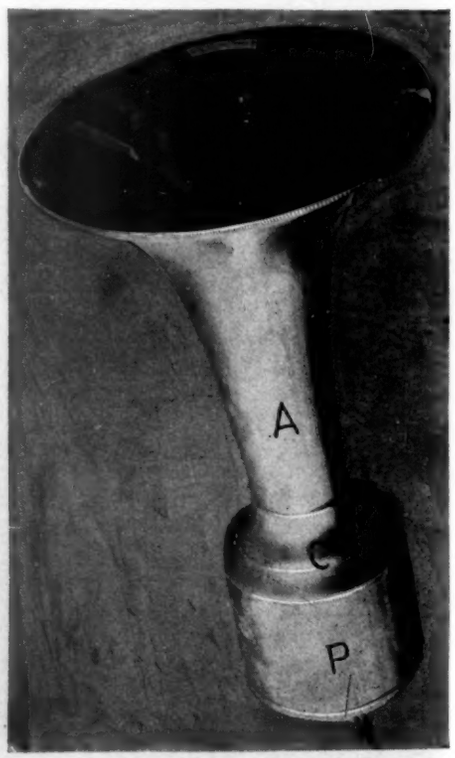
From Kansas City, Mo., comes the first genuine pitless automobile turntable, one that can be attached to any garage floor whether wood or cement, and one which does not disfigure or destroy the garage floor more than the damage caused by a few screws. The foundation of the turntable is a circular iron track of sufficient diameter to accommodate automobiles with maximum wheelbase measurement of 100, 120 and 134 inches for each, of which the respective diameters of the iron rings are 108, 124 and 140 inches. This iron ring is made 2 inches wide, ⅝ inch thick, and is rigidly held to the floor by a couple of dozen of screws, and in case of a cement floor special fasteners are provided. A wood framework is made to ride on this metal track and which consists of a pair of side pieces A and B on which the automobile wheels rest, and hinged to the ends of these pieces are short hinged approaches C permitting the car to be easily run onto the table. This framework is carried on the iron track by a set of four pairs of iron wheels D, which are adapted to run on the track, the entire framework being held so that the wheels cannot other than run on it by means of the central anchor E and the four brace rods running to the corners of the framework. The turntable, shown in the illustration, is intended for public garages, and the top of it is barely 2½ inches above the floor. The wheels carrying the framework are 5½ inches in diameter. For use in private garages another design of turntable almost identical with the one illustrated is made except in that the approaches C at the ends of the frame side pieces are screwed to the floor and do not revolve with the turntable. The complete outfit weighs 400 pounds. The most apparent advantage of this device is that the garage floor is not cut up or permanently disfigured by the presence of the table, neither is the table susceptible of upsetting, as the four sets of supporting wheels afford good balance.



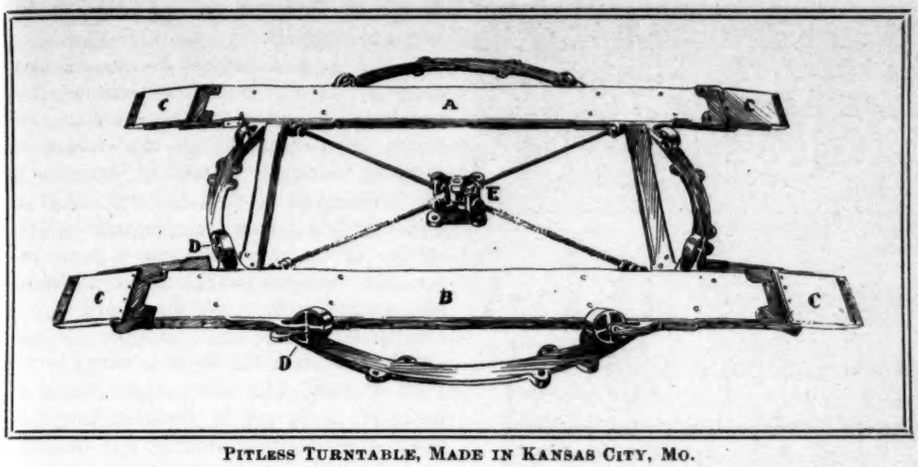
MECHANISM OF VESTA HORN

KINGSTON'S COMMUTATOR

As revealed at the recent automobile shows, one of the newest commutator designs is that brought out by Byrne, Kingston & Co., of Kokomo, Ind., in which roller contact is adopted. The commutator casing A, of heavy brass, is in one piece, having the threaded portion for supporting it, the cup-shaped piece for containing the revolving part and the handle for advancing and retarding the spark made integral on the outside. Insulation is by a ring of hard fibre B within the casing, into which is embedded the four long segmental con-



EXTERIOR VIEW OF VESTA HORN



PITLESS TURNTABLE, MADE IN KANSAS CITY, MO.

tacts C carried on the stems D and held in place by spanner nuts F, with insulation washers E between them and the brass casing. The nuts and locknuts G are for attaching the wires from the plugs. The segments C have their surfaces flush with the inside surface of the fiber insulation B, so that the roller L which makes the contact is always bearing upon an even surface, there being no tendency to cause vibration which would endanger any of the contacts. The hub part H of the commutator is a heavy brass piece adapted to fit any shaft. It carries a short lug J forming a pivot for the curved arm K, in the center of which is carried on a hardened shaft the contact roller L. In order that the roller L may be kept in constant contact with the four terminals on the fibre part between them, a flat curved spring M is held by screw N to the hub part and has its outer end resting in a slot in the end of the arm K. The tension of the spring is such that it tends to maintain the roller L in constant contact and further exerts its pressure in the direction at which the arm K revolves, thus not unnecessarily impeding its movement. In addition it can be noted that the arm K in reality pulls the roller L over the segments as the arm takes its attachment with the hub piece H at the forward end. In this manner any pushing force is obviated. A brass cover P fits over a pair of screws R, which pass through the brass casing and fibre part, and on the tops of these fit little finger nuts Q, which, when tightened, bind the three essential parts of the commutator, the casing A, fibre B and cover P together.

MOTOR CAR LITERATURE

The Locomobile Co. of America, Bridgeport, Conn., becomes reminiscent in the opening pages of its 1906 catalogue by illustrating the original four-cylinder Locomobile that contested in the New York-Boston endurance run, the car in the New-York-Pittsburg endurance run, the car that contested in the Glidden tour of last season and finally the racer in which Tracy finished third in last season's Vanderbilt cup race. Well selected information is used in this retrospect. The catalogue portion which follows shows plan and side of chassis, right and left of motor, camshaft, magneto, half-time gears, radiator, transmission set, springs, control features, brakes and repair kits of both cars, the 15-20 and the 30-35. Pages are devoted to large views of these machines with touring, runabout and limousine bodies and the specifications are tabulated on opposite pages. The catalogue is one of the best of the season from a point of view of information and illustrations.

Under the heading of "What They Say," the Olds Motor Works, of Lansing, Mich., publishes a great many letters from users of Olds cars. The book is neatly gotten up, the lower half of each page being devoted to an amusing pen sketch illustrative of the humorous side of motoring.

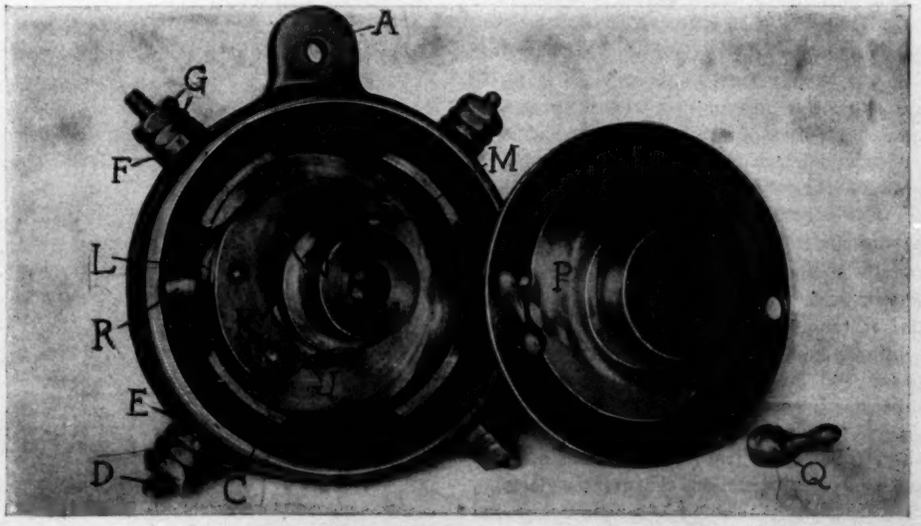
"The American Mercedes" in gilt on a brown ground, with eagle and shield design beneath, is the sole decoration on the front cover of the present catalogue issued by the Daimler Mfg. Co., Long Island City, N. Y. The book is an art production from front to rear. Using a heavy cloth cover with art decoration is an innovation in the motor car field. It is of regular book size and printed in black with red initials. Paper is of a very heavy rough finish. The type is of large size, the illustrations are black on a yellow tint block, pasted onto separate pages; and the information is more carefully prepared than in the ordinary trade literature. The books are being mailed in pasteboard boxes.

P. M. Hotchkin, 4021 Lake avenue, Chivago, Ill., is mailing at present an eight-page booklet on his anti-shock device. Besides illustrating all parts of it, he shows a chart which shows the vibration of a car without a shock absorber and follows this by a similar chart showing the vibration of the car over the same course when fitted with a Hotchkin shock absorber.

Milling machines, cutters and tool grinders, surface grinders, die slot machines, universal screw machines, chucking lathes, forming machines, automatic tapping machines, gang drills, duplex drill lathes, hangers and other machines and tools are pictured, described and priced in the 1906 catalogue of the Garvin Machine Co., New York city. The book is made in pocket size, and contains 222 pages.

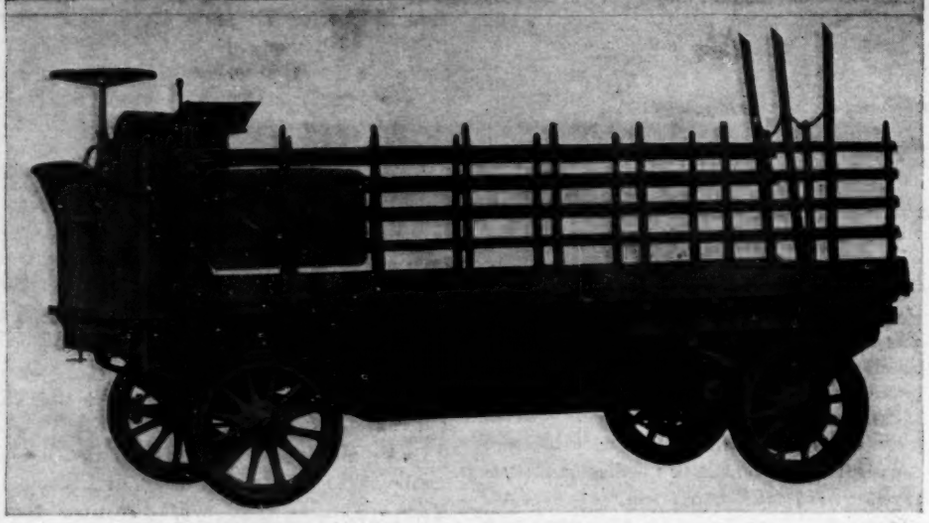
Under the title of "A Study of the Oldsmobile," the Olds Motor Works of Lansing, Mich., publishes a code of directions for users of the two-cylinder touring car. The illustrations are line drawings and the information is accurate detail on the control and care of the car. The company has a small catalogue devoted to its model S four cylinder car; another on its model B and another on its model L.

Containing 514 pages and made in pocket size with illustrations and prices on every page, the present season booklet of the Brown & Sharpe Mfg. Co., of Providence, R. I., is an excellent guide for buyers interested in machinery and tools. The objects listed include twenty-four styles of milling machines, long lists of attachments for each machine, grinding machines of various types, emery wheels, gear-cutting machines, plain screw machines, automatic screw machines, chucking machines, pumps, milling cutters, saws, angular cutters and the numerous other tools needed in general machine shop work.



NEW KINGSTON COMMUTATOR

In the Realm of the Commercial Car



STUDEBAKER 3½-TON ELECTRIC STAKE TRUCK

STUDEBAKER ELECTRIC STABLE

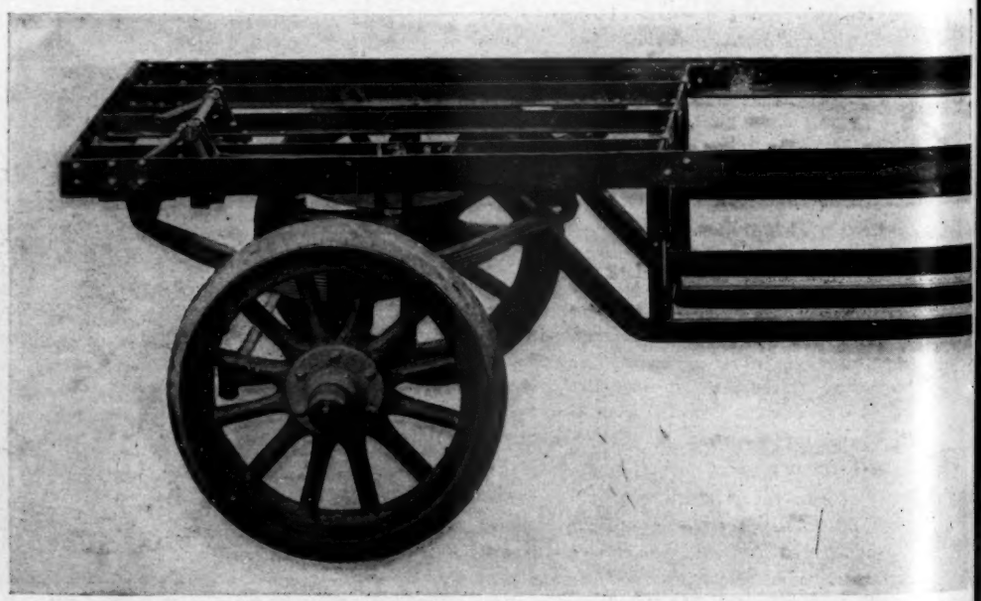
STUDEBAKER electric commercial wagons are now built in a variety of styles with carrying capacities ranging between 500 pounds, the load limit of the light delivery wagon, to 5½ tons, the rated carrying capacity of the largest trucks. On all of these wagons one design of chassis frame is used, the pieces, of course, being proportionately heavier and stronger as the wagon ascends in the scale of load carrying. These wagons are all characterized by carrying the motor on a cradle beneath the vehicle frame and between the front and rear axles. In past seasons the Studebaker Automobile Co., of South Bend, Ind., maker of these machines, has followed the practice of carrying the motor to the rear of the back axle, but this season a change has been introduced, many of the machines now carrying the motor in front of the axle and between the axle and the rear end of the battery tray. Carrying the motor in this position has in every case resulted in a lengthening of the wheel base, which, in commercial machines, means a like lengthening of the useful load-carrying space.

The standard Studebaker chassis construction is exemplified in the illustration. Noteworthy in this is the general use of angle section metal. The main frame part, of rectangular design, has the angle facing inwards and upwards, so one part of it acts as a bed on which rests the several cross pieces. The battery cradle, also of angle metal, is riveted to the frame cross pieces and follows the truss work system adopted in bridge construction, the great object being strength necessary for carrying the heavy battery load, which, in the case of the 3½-ton truck, approximates 2,260 pounds; the other vehicles have a corresponding ratio. For this season semi-elliptic springs are used on all styles. In the 3½ and 5-ton trucks these springs are shackled at one end. The other end assumes the form of a sliding block, attained by bending the end of the longest leaf into an elliptical loop and having the supporting bolt of the frame pass through this loop. In the delivery and express wagons a system of shackling identical with that employed in standard automobile building appears.

On Studebaker commercial machines Westinghouse electric motors are used exclusively. In all models the suspension of the motor on the main frame, thus relieving it from the strain and jar it would receive if carried direct on the car axles, is followed throughout.

In the large models two motors are used, as in all of the smaller deliveries. The suspension of all is precisely alike. The motor is suspended by two triangular brackets which are pivoted at their top to the frames and at their bottoms carry the armature shaft and countershaft of the motor. From these brackets a truss rod connects with the rear axle so the chain adjustments to the back wheels are readily accomplished. By lengthening or shortening the truss rods the motor is swung to the front or rear. The motor in the chassis illustrated is carried in front of the back axle. By closely examining the view the reader will notice the countershaft carried to the front of the motor as well as the steel pinions by which the armature shaft drives this countershaft. On the outer end of the countershaft is the small sprocket for chain drive, a system of transmission adopted in all Studebaker electrics. The chain sprocket on the rear wheels is made very large and carries within it a drum for the expanding brakes. All motors, irrespective of the machines to which they are attached, afford four speeds ahead and as many for reversing, all of which are obtained from a controller carried generally beneath the seat and operated by a short seat lever, the company not using the controller handle on the steering wheel. Wheel-steering rules except in the 1,000-pound delivery wagon, in which a side lever at the left is used. Where the wheel is adopted a steering gear is not required, the connections from the bottom of the vertical shaft carrying the wheel to the knuckles being rods with yoke ends. The brakes are pedal-applied.

A brief resume of the details of the several cars follows: In the 3½-ton truck the motor is of the 80-volt, 35-ampere variety; forty cells of National or Exide battery are carried in four trays, the weight being 2,260 pounds; the useful radius of



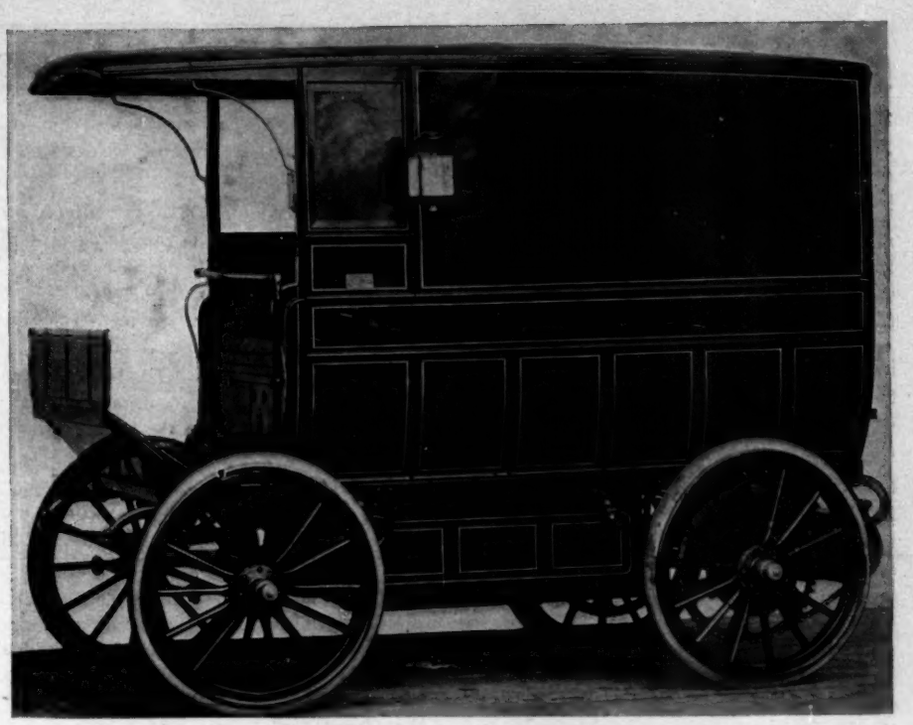
CONSTRUCTION OF THE STANDARD

travel on one charge is 30 miles on level streets; a speed of 7¾ miles per hour is given; the wheelbase measures 10 feet 7 inches; wheels are 36 inches in diameter and front tires are 5 inches wide, whereas those in the rear are 1 inch wider; the load-carrying platform measures 12 feet 4 inches in length by 5 feet 6 inches in width; the total weight of the machine is 8,800 pounds; the carrying floor is 43 inches above ground and the extreme length of the machine is 16 feet 3 inches. This truck is fitted with a body to suit the purchaser, that shown in the illustration on another page being of the stake variety. Others with board and flaring sides are provided according to the nature of the work.

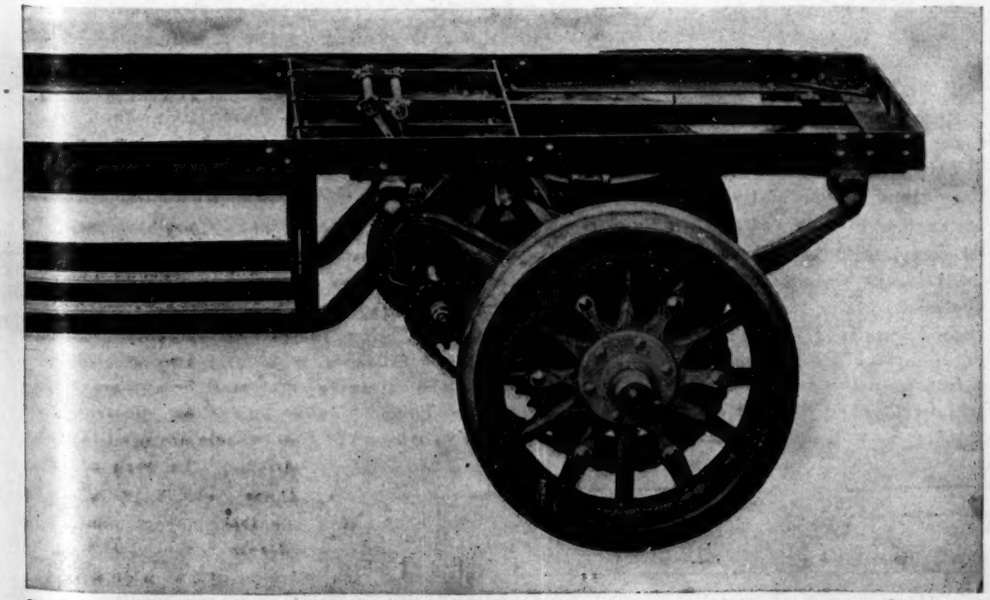
The 1,000-pound delivery wagon carries an 80-volt motor; has forty cells of battery, affording a useful radius of 35 miles on one charge; has a possible speed of 12 miles per hour; its wheelbase measures 92 inches; it weighs 3,500 pounds and has a carrying space measuring 6 feet 10 inches in length, 4 feet wide and 5 feet 2 inches high to the canopy cover.

Mounted on the same chassis as the 3½-ton truck is a fourteen-passenger bus. It follows that design with the motors carried in rear of the back axle and uses a wheel for steering. The body of standard omnibus lines has a rear entrance and facing side seats accommodating seven on each side. Four drop windows are on each side. In the rear are three and others are in front above the back of the driver's seat. The driver is protected by a projecting canopy formed by a forward extension of the roof of the covered apartment, and for inclement weather he is offered the protection of drop curtains in front and at both sides of him.

Other particular styles of bodies attached to this chassis are piano delivery box, having a large carrying space with wide double back entrances; express wagon with low board sides, canopy top and drop curtains; and a large style of delivery body with paneled sides and permanent covered compartment. Body style is not a standard construction with Studebaker, the company preferring to make bodies to suit the needs of the purchasers. On all the standard chassis, battery and motor are used.



STUDEBAKER 1000-POUND ELECTRIC DELIVERY WAGON



CHASSIS USED IN THE STUDEBAKER WAGONS

FIRST COMMERCIAL CAR

Minnesota is endeavoring to claim one more honor in the commercial world—the birthplace of the commercial motor vehicle. It has been proved beyond doubt by government records and the word of old stttlers, that early in the '50's General Joseph R. Brown operated a "prairie motor" from New Ulm and Mankato to Red Wing, carrying government supplies for the forts in the wilderness. The big steam road vehicle was the conception of General Brown, who helped in the building of Fort Snelling, in 1821, and who became Indian agent at New Ulm, Minn., early in the '50's. At that time there were no railroads into the wilderness of Minnesota. The government was pushing the work of development as rapidly as possible, but the Mississippi river was the only highway into the country, and the outlying forts were far from the base of supplies. General Brown secured an appropriation from congress for the steam wagon by concealing it in a bill providing funds for schoolhouses, churches, agricultural implements, farm wagons and live stock for the Indians. The steam wagon was built by J. A. Reed, superintendent of the Novelty Iron Works, New York city, where Robert Fulton's first steamer, and Ericsson's monitor were built. The steam wagon was brought west over the Rock Island road, loaded onto one of the river steamers, and taken up the Mississippi to Red Wing. It was there put into service, and made a number of trips over the unbroken prairie, hauling supplies from the river packets to Red Wing, to the forts at New Ulm and Mankato. The steam wagon struck terror to the Indians, and was regarded with awe by the early settlers. Upon the death of General Brown it was put out of commision as a commercial automobile, but was installed in a grist mill at the New Ulm agency, and did duty there for many years as a power plant. General Brown tried the use of the steam road wagon on a larger scale in 1862. He had a big steam wagon built, costing $12,000, with which an attempt was made to cross the continent. The machine got as far as Nebraska City, taking 37 days for the trip, but the car broke down near there, and the remainder of the trip was never continued.

COMMERCIAL STEPPING STONES

Badgers' Enterprise—The Wisconsin Auto Transit Co. has been incorporated to run an automobile passenger and parcel delivery service in Manitowoc, Wis.

Almost Perfect Record—Chisholm & Philips, garagemen in Cleveland, O., have used a single-cylinder Knox delivery car for 3 years in the delivery of parts and other garage work around the city. During that time the machine has practically had a perfect record.

Jersey Enterprise—The Camden and Atlantic Automobile Co., Trenton, N. J., has been incorporated with a capital stock of $25,000. The objects of the corporation are to manufacture, buy, sell and operate automobiles between Camden and Atlantic City for the purpose of carrying passengers and freight.

Showing Detroit Merchants—The Reliance Motor Car Co., of Detroit, Mich., which will in the future devote its exclusive factory space to the building of commercial cars, is at present making weekly demonstrations with its truck among the Detroit business houses. The truck is of the two-cycle, two-cylinder variety. Being a new design with the company it is being thoroughly tested before placed on the market.

Department Store Investigates—Detroit's leading department store, the Hudson, is at present testing out the new commercial delivery wagon known as the Cartercar, built by the Motorcar Co., of Detroit, Mich. This machine has a motor consisting of two horizontal, opposed, water-cooled cylinders carried crosswise of the car in front beneath the dash as the power plant. The drive is by friction wheels and disks instead of a gear set, thence by single chain.

Frisco Chief in Line—Captain J. F. O. Comstock, of the underwriters' fire patrol, of San Francisco, has given up the reins for the steering wheel and will hereafter go speeding to fires in his Autocar runabout. The captain, after receiving three lessons of 15 minutes each, drove the machine through the crowded downtown streets to his headquarters without a hitch. Head Chief Sullivan, of the San Francisco fire department, and two other chiefs, have been using automobiles for over a year.

Toledo's Rubber Neck Cars—The Toledo Auto Touring Co., of Toledo, O., with a capital stock of $15,000, has been incorporated under the laws of the Buckeye state, to operate a system of rubberneck cars in that city. The incorporators are Frank J. Van Loo, James Sheehan, Ulysses G. Denman, Carl A. Huebner and Louis E. Krieger. Cars will be purchased within a short time, and during the coming summer the coaches will be operated between the city and the parks and summer resorts.

Short Line—The Ames & College railway, Des Moines, Ia., is preparing to equip its line with a newly-devised system of gasoline-electric motorcars. The line is about 2 miles long and connects the town with the Iowa agricultural college.

Kirks Not Kicking—Kirk Bros., located in Detroit, Mich., conduct a garage in that city, where they handle the Olds machines. It is their intention to make a specialty of commercial machines during the coming spring and summer, doing continuous demonstration work in and around the city for varied industries.

Gasoline-Electric Truck—The Fuller Mfg. Co., of Detroit, Mich., maker of electric appliances for steamboats, is building a large gasoline-electric freight truck, in which a gasoline motor drives a generator that furnishes electricity for four electric motors, one carried on each road wheel. The truck will have 5 tons capacity.

To Make Own Power—The Union Transportation Co., Memphis, Tenn., has purchased from a Chicago firm an electric generating apparatus and will hereafter charge the storage batteries of its fourteen automobiles from its own electric plant. The dynamo arrived last week and is being installed. Heretofore the company has been operating its machines from current purchased from the street railway company.

Builds for Brewery—A new gasoline delivery wagon for the Minneapolis Brewing Co. has been built by the Caplin Automobile Co., of Minneapolis, and was delivered recently. The wagon is a light city delivery, built upon the chassis of a Royal Tourist stock car. The Caplin company designed and constructed the delivery body, and the wagon has been tried out with great success. The Minneapolis Brewing Co. has used a Knox delivery for city work for 2 years.

Rushing Work—The Rapid Motor Vehicle Co. has occupied its new factory at Pontiac, Mich. This factory, built from gray stone, is one of the largest in America exclusively devoted to the manufacture of commercial machines. The factory is built in the form of an L. In the space enclosed by the two sides are several detached buildings used in the manufacture of the machines. At present seventeen cars are on the factory floor, all of which will be finished as soon as possible. The factory is well located, having a switch connecting with the Michigan Central and Grand Trunk railroads so the trucks can be run off the floor of the factory into the cars.

Selling Soules—The Soules delivery wagon built by the Soules Motor Car Co., of Grand Rapids, Mich., is being pushed along. Forty cars are now in course of manufacture. The sales department is controlled by William Neuman, of Detroit, Mich.

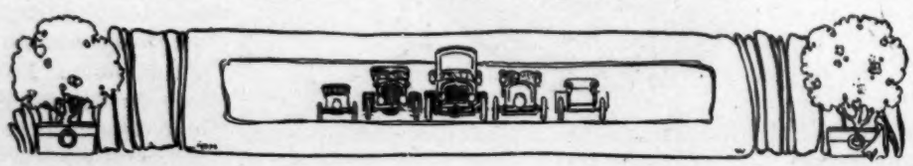
Ready to Build—The Commercial Motor Truck Co., 805 Spitzer building, Cleveland, O., has been demonstrating for 10 months with its gasoline truck. The company's factory will be located at Plymouth, O., and will be occupied in a couple of months. Then the manufacture of the truck will begin.

Another Won Over—The Four-Wheel Drive truck promises to be a factor in the commercial vehicle activity in the Twin cities this year. One of the big 5-ton trucks has been sold to J. H. Allen & Co., wholesale grocers, St. Paul, and will be delivered early in April. The Fawkes Automobile Co. has the agency for the Four-Wheel Drive in both Minneapolis and St. Paul.

Has Bunch of Cars—Fifteen cars will be built by the Detroit Auto Vehicle Co., of Detroit, Mich., during the coming season. The new four-cycle engine now being used in the demonstrating wagon has already been given a good test. It shows up well. A new factory is now being built in an outlying section of the city and with the occupation of this in the coming fall the concern will enter heavily into the building of commercial machines.

Tennessee Lines—Jones & Pickett, of Murfreesboro, Tenn., who operate a stage coach out of that city to Woodbury, Tenn., are figuring on establishing an automobile bus line. It is stated that should the automobile venture prove successful that several other lines will be established through that section of country. The run is 19 miles. Parties from Paris, Tenn., are figuring on establishing a similar route out of that town to touch several summer resorts in the vicinity.

In New Factory—The Couple Gear Motor Co., Grand Rapids, Mich., is now located in its new factory and has it well equipped with a good outfit of automatic machinery. The factory building is 200 feet long, 70 feet wide and two stories high, the building material being gray stone. The company builds an electric truck in which the four wheels are used in driving. In each of these wheels is an electric motor completely encased between the sheet metal wheel sides.



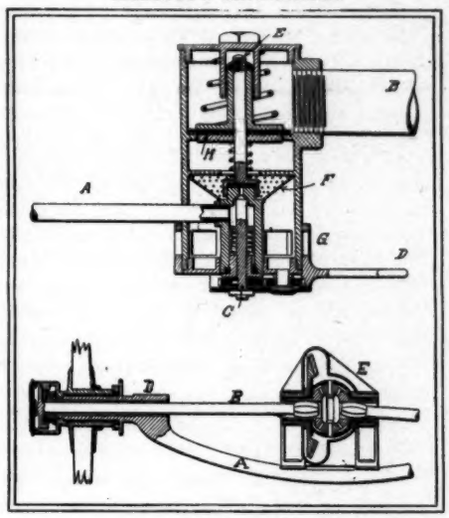
Current Automobile Patents

Spring Wheel—No. 815,573, dated March 20; to Charles C. Wilson, Dayton, O.—In the inventor's spring automobile wheel is a hub piece with a set of eight tubular spokes reaching three-quarters of the distance to the wheel rim. The rim of the wheel is made up of six segments bolted together at their ends. To the center of each segment is pivoted the outer end of a short plunger spoke that slides within the tubular spokes from the hub. Within each tubular spoke is a coil spring that the plunger spoke rests upon. In the rim of the wheel is a set of six flat leaf springs that overlap the joints of the rim segments, previously mentioned, and which are secured to the small blocks that the ends of the segments are bolted to.

Carbureter Piston Throttle—No. 815,712, dated March 20; John H. Johnson, Paris, France—The throttle in this carbureter is a vertical piston with the center of it hollowed out like a cone. In the top of this conical space is the tip of the gasoline pipe from the float chamber. The piston is movable up and down and in its walls are five horizontal slot openings through which air can enter. When the piston is in the position shown, air enters the conical space within the piston through the two lower slots and exits into the V-placed pipes on top of the carbureter to the motor through a small opening in the top of the piston. Should the piston be raised then the mixture in the conical piston can escape also through the top series of horizontal slots in the piston. Should the piston be raised still higher the two upper slots come into service and the air is free to enter below the bottom of the piston.

Floatless Carbureter—No. 816,477, dated March 27; to G. W. Kellogg, Rochester, N. Y.—This carbureter has not the float deemed so necessary by most manufacturers. Gasoline enters by way of the pipe A. Mixture passes to the motor through the pipe B and the gasoline and air are mixed through the action of the nozzle at the head of the check valve C. Air enters through a series of ports G around the base of the apparatus. D is a controllable handle which, when moved in one direction, opens the air ports G and also opens the spraying nozzle by lowering the check valve C. When the lever is moved in the opposite direction it closes the air ports and entirely shuts off the flow of gasoline by raising the valve C. The mixing of the air and gasoline is partly accomplished by an inverted cone F, which is filled with perforations. The gasoline flowing out of the nozzle drops into this cone. The incoming air through the ports G rises and, passing through the perforations of this cone, is afforded a good distributing surface so the drops of gasoline are well broken up and easily mixed with the air. The passage of the mixture to the motor is under the control of the spring valve H, this valve being raised with each suction stroke of the motor. On high speed the valve is held continuously open.

KELLOGG'S CARBURETER



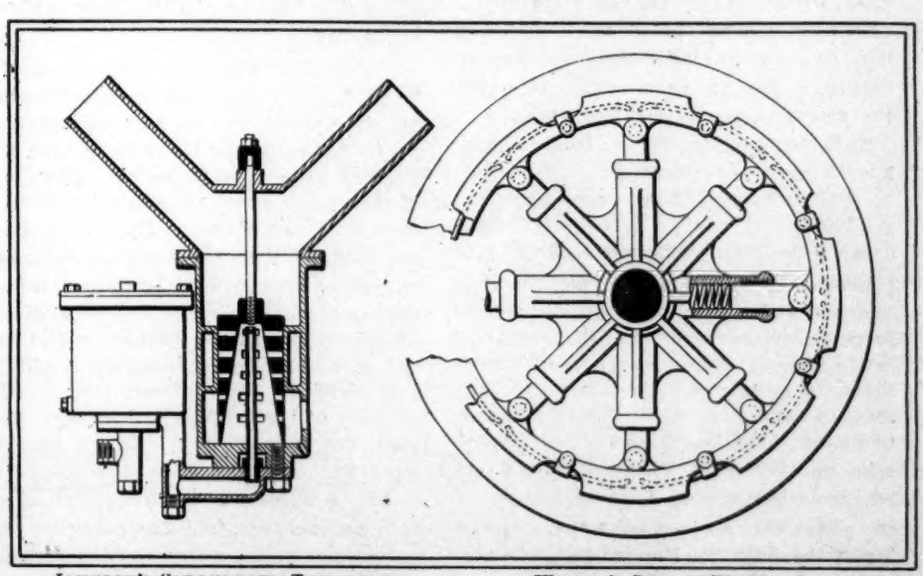
PETIET'S REAR AXLE

Unique Rear Axle—No. 816,250, dated March 27; to C. M. Petiet, Villeneuve-la Garenne, France—This axle is of the floating type and has the casing part A made with a central drop and two sleeve parts D at the ends. The driveshafts B, which rotate the wheels, carry the differential E in the center, the peculiarity of the axle being that the differential is carried entirely above the bowed casing A. The casing acts as a truss to itself.

Coil Springs—No. 816,396, dated March 27; to T. G. Stevens, Greenthithe, Eng.—The inventor's spring suspension is novel. A horizontal beam of the length of an ordinary semi-elliptic spring is pivoted on the ends of the axle and directly beneath and parallel with the side frame pieces of the car. The ends of this connect with the frame through two arms that are pivoted or hinged together at the center and hinged at their ends to the frame and horizontal beam respectively. To the places where they are hinged to each other are attached coil springs placed practically midway between the frame and the horizontal beam and parallel with both. As the car's weight increases the spiral springs lengthen.

Starting Crank—No. 813,068, dated February 20; to H. J. Wiegand, Milwaukee, Wis.—Instead of a common crank the inventor uses one which attaches itself to the crankshaft through a hook grasping a lip on the shaft. This hook is under the control of a cam lever which is in turn cared for by a pawl with the latter under normal control. The pawl is so designed that with a reversed movement of the crankshaft the hook securing the crank to the crankshaft is disengaged and a back-kick avoided.

Motor Dumping Cart—No. 813,044, dated February 20; to P. E. Hanson, Galveston, Tex.—Hanson's invention is a three-wheel dump cart propelled by a gasoline motor carried in front of the back axle and having a load-carrying platform pivoted above the axle so that it will tilt backward sufficiently to permit the load sliding off. Steering is through the single wheel in front and drive from the motor is by side chains to the back wheels which are made with a large diameter and are shod with broad steel tires.



JOHNSON'S CARBURETER THROTTLE

WILSON'S SPRING WHEEL

From The FOUR WINDS

JAN KUBELIK AS A DRIVER

Kubelik Converted—Jan Kubelik, the famous Bohemian violinist, now calls himself a full-fledged motorist. While in San Francisco recently he was frequently seen at the wheel of a four-cylinder Oldsmobile.

Mayor Criticized—Mayor Dunne, of Chicago, stopped using the municipal automobile in the recent campaign when the critics pointed a finger at him. He admitted he had ridden in the car for political purposes, but offered to pay for the gasoline used. He could see no wrong in this, but it was noticed that after the criticism he contented himself with jogging around to the different halls in a horse-drawn vehicle.

Fisher an Aeroist—Carl Fisher's new airship is now holding forth in the garage of the Fisher Automobile Co., of Indianapolis, where it will remain until an engine can be completed for it. No air ship races have been planned yet for the Hoosier capital, but it is presumed they will come later. There is some fear that the big bird may collide with the Soldiers' and Sailors' monument, the pride of Indianapolis, during one of its flights, and it is possible the city council will pass an ordinance prohibiting air ships from flying nearer than 400 feet to earth.

Automobile in Man Hunt—Isaac Winder, a condemned negro murderer, escaped from the Baltimore jail. Posses were formed to run him down, but they met with little success. Finally a concerted effort was planned. Bloodhounds were secured from Virginia and a number of deputy sheriffs from Baltimore went into the neighborhood. Rumors came from a dozen different places of spots where the negro had been seen, and the plan was to take the hounds to all of these localities and attempt to take up the scent. Difficulty was encountered in this plan, however, as some of the places were a dozen miles apart. Hearing of the difficulty, Howard Gill, who represents the Thomas Flyer in Baltimore, offered his car to the officers. Deputies and bloodhounds were loaded in it, and by this means the chase was taken up. A complete round of the country was made within a comparatively short time, but the dogs and men were unable to locate the fugitive.

Drexel After Cup—Philadelphia will in all likelihood be represented in the next Vanderbilt cup race, although by a foreign car. John R. Drexel has ordered a Mercedes racer with the avowed intention of winning the cup, if there is any possible way to turn the trick.

Goddard In—Charles Marvin, assistant secretary of the Cleveland Automobile Club, has resigned. In his place the club has secured the services of Asa Goddard, formerly of Worcester, Mass., who was a member of the good roads committee of the American Automobile Association for several years. In that capacity he has traveled extensively throughout the country advocating the betterment of the highways. He took charge of the club's affairs April 1.

Insane Man's Freak—An insane man created a stir in Indianapolis last week by ordering automobiles in wholesale lots, saying they were to be presents to his intended bride and friends. As the man was well dressed, quiet and thoroughly understood automobiles, dealers and manufacturers thought he was in earnest. After ordering something like a score of touring cars of various makes, the police arrested him. The man was William Rugenstein, formerly an employe of an Indianapolis automobile factory ,and he is now confined in an insane hospital.

French Tire Test—Pneumatic tires will be given a thorough test in the European circuit, a trial having been arranged in connection with the big tour to take the place of the proposed tire race which was abandoned because of the other French events of importance. Each competitor can only use the tires of one manufacturer, and all repairs must be carried out on the road without assistance. The covers and air tubes will be marked, and at the end of each stage the competitor will be authorized to replace worn tires in the presence of the executive committee. The parts renewed or worn will be sent to Paris to be examined by the judges in order to ascertain the consumption of tires on each car, and the condition and commercial value of the tires so replaced will be taken into account when making the classification. This classification will be based upon the total value of the tires used, as ascertained from the makers' price lists.

Quaker Appointments—President Dick, of the Automobile Club of Philadelphia, has appointed the following runs and tours committee: H. Bartol Brazier, chairman; Dr. J. P. Fishmuth, Howard Longstreth, Stedman Bent, H. Allen Dalley, G. B. Fletcher and W. L. Griffith.

Runabout Test—L. L. Blood, of Toledo, O., is planning a test run for seven automobiles, of the 16-horsepower, two-cylin der variety, listing below $1,000, between Toledo and Cleveland, during the fore part of May or the latter part of this month. Local agents, Blood with the Reo, the Central Garage Co. with the Auburn, the Kirk Bros. Automobile Co. with the Oldsmobile, the Lichtie Automobile Co. with the Cadillac, the Antler Stables & Garage Co. with the Ford, the Weed garage with the Buick, and the Fulton street garage with the Maxwell, will be the participants if the test is pulled off. Each agent will be expected to put up $100 each, making a purse of $700.

Winning Its Way—Automobiles now play an important part in the elections of the United Kingdom as well as in this country. The increased vote in the recent elections in England is partly ascribed to the free use of automobiles, especially in getting out the rural vote. This is helping to break down the antagonism of the farmers and villagers to automobiles. Every day evidences a more general use of motor cars throughout King Edward's dominions. Speed regulations in the neighborhood of Edinburg are now practically a dead letter. On the main roads leading into that city motor cars frequently travel 50 miles an hour, or 30 miles in excess of the limit fixed by an act of parliament. No effort is made to apply penalties except when accidents occur.

Motor Cycle Activity—Carroll Leroy Mosher, chairman of the Federation of American Motorcyclists' committee on transportation and facilities, now has well in hand the work of sorting out motor cycle repairers and establishing a system of official repair shops. The system contemplates the issuance of first, second and third-class certificates, the basis of the graduation being the experience of the respective repairmen and the facilities afforded by their shops. Thus, a first-class certificate will imply that the holder is himself a motor cyclist of more than 2 years' experience, or has such in his employ, and that he is equipped to undertake lathe work and carries in stock extra parts and also such necessities as are enumerated. A second-class certificate will convey that the holder is a motor cyclist or employs one, but does not carry in stock any motor cycle parts or sundries, and is not equipped for lathe work. A third-class certificate will signify that the holder does

not ride or sell motor cycles and is not experienced in their use and care, but has a lathe and may be able to render services in emergencies.

New Craze—French makers who intend entering cars in the Circuit European are vieing with each other in their efforts to secure celebrities for drivers. The tendency is to get gentlemen drivers, so-called, and one maker has scored by landing Prince Bibesco, president of the Roumanian Automobile Club.

European Circuit Entries—Twelve cars have been entered for the European touring contest. These are two Darracqs, two Mercedes, one Peugeot, one Wolseley, one Regina-Dixi, one Dixi and four de Dion-Boutons. M. Darracq not only entered his machines first for the grand prix race of the A. C. F., but also for this touring competition.

Women Working—Mrs. John Sharp, of Jackson, Mich., chairman of the town and civic improvement committee of the Federation of Women's Clubs of Michigan, has organized a committee for the improvement of the city in general and the highways in particular. The committee consists of members of the Nature Club, the Conversational Club, the W. C. T. U., the Women's League, the Young Women's Christian Union, the Women's Club, the Y. M. C. A. and the Business Men's Association. A great deal of work will be done toward improving the city's highways.

Peculiar Accident—Through the burning of Count Theodor Salburg's automobile at Bad Hall, in Upper Austria, Ignaz Braunhirn, a Viennese merchant, lost his life, while Count Salburg and Baron Ludwigstorff sustained serious burns. Count Salburg and Baron Ludwigstorff were on an excursion when the automoible suddenly broke down. The occupants, assisted by Braunhirn, were endeavoring to ascertain the cause by the light of a candle, when some gasoline escaped and caught fire. In a minute the three men and the automobile were enveloped in flames. Braunhirn succumbed the next day.

Port Huron Enterprise—The chamber of commerce of Port Huron, Mich., may engage in the manufacture of automobiles if a project which is now before it meets with approval. The committee on new enterprises and investigation is looking into the merits of a proposition submitted by George F. Conner, who has some new designs for a motor car. The new design consists of a wheel without a pneumatic tire, the vibration being absorbed by mechanical means. The engine is two-cylinder, two-cycle, and is said to have several improvements in the way of explosion and exhaustion. The transmission gear is also something new. It was patented some years ago by Mr. Conner and has been in use since.

New York, 25,000—David S. Johnson, of Cohoes, owner of a Ford car, is proud of his number—25,000—which denotes the high-water mark in automobile registration in New York state.

Enterprising Theatrical Man—Elsie Janis is coming to Chicago with the "Vanderbilt Cup" and George W. Lederer, manager of the Colonial theater, where she will show, will take advantage of this by holding an automobile show in the lobby of the theater during the engagement. He will assign space upon application.

Table Novelties—Motorists in India recently gave a dinner at which the table was decorated with six large blocks of ice, each block containing frozen in the center a miniature motor car brilliantly illuminated with electric lights, the ice slabs being draped with union jack flags. The menus were miniature white and gold cars, the bill of fare being written on the canopy. A pair of small mica goggles rested in the front seat of the toy cars.

Buckeyes Slow—The state legislature of Ohio seems a little slow in getting at the good roads bill, and county commissioners are not a little worried for fear that the bill will not be passed upon at the present session. There is no law by which county commissioners can keep roads in repair, unless they go about the matter illegally. There are now over forty good roads organizations in the state, and all are anxious that something be done by the present legislature in the way of providing a fund that the work of securing better roads may go on. The bill is a good one, and its passage will be an important step toward securing better roadways throughout Ohio.

Locomobile Denial—Denial is made by the Locomobile Co. of America of the report that it is going to build a new Locomobile to be entered in the Vanderbilt eliminating trial next fall. "We have no intention of building a racing car this year," writes Advertising Manager Kingman. "There are a variety of reasons, but perhaps the most important is that we are not and have never been a racing firm, and the car which did so well last year was simply a high-powered machine built to order for one of our customers. He bought the car and raced it; our share was simply to build it. You might ask as to whether the old car would be entered in the trial or not, but inasmuch as the car is the property of Dr. Thomas and inasmuch as we do not know what he intends to do, we cannot offer any definite advice on the subject."

After Hose Cart—The Rescue Hose Co., of Bloomsburg, Pa., is fired with an ambition to secure an automobile hose cart, and has started a subscription list with a view to gratifying its desires along this line.

Work for Free Alcohol—Members of the Grand Forks Automobile Club, of Grand Forks, N. D., have decided to ask their congressmen to work for free alcohol. This matter came up at the annual meeting, which also elected the following new officers: President, W. L. Wilder; secretary, T. J. Smith; treasurer, W. H. Kelsey. The club has fifty members.

Increase in Italy—The use of automobiles is increasing rapidly in Italy, and they will soon be adopted as public carriages. Two new Milan companies plan to operate motor cars in Lombardy and eventually place them all over Italy. The use of motor boats has also spread in Naples. They are becoming highly popular for pleasure, and in summer weather safe enough for practical purposes of coasting and running over to the islands.

Bungalow for Club—The Automobile Club of Washington is about to erect a bungalow for the use of the club during the summer months. It will be erected on the Brightwood road within easy riding distance of the city, and will have every convenience. The detailed drawings have been submitted and are now in the hands of the building committee, consisting of Harrington Mills, chairman; C. R. Hough, H. Chadwick Hunter, H. C. Chandlee and Charles H. Johnson, who will invite bids for the erection of the building. Spacious porches on three sides of the bungalow will be a feature, while a large open fireplace will give the clubhouse a comfortable appearance when the weather is chilly. It is hoped to have the bungalow ready for occupancy in May.

Going Some—Edward Richards has just returned to Buffalo from New England after a trip that has lasted 10 weeks. Richards took a Thomas Flyer the middle of October last year and ran it in Buffalo until the beginning of the New York show, when the car was shipped there. From then on it was in a constant series of demonstrations, his rest coming only at the conclusion of the Boston show. Among the cities visited were Rochester, Chicago, Detroit, Cleveland, Philadelphia, then a week in Buffalo, and thence to Boston. At the end of the Boston show the odometer on the car showed that he had traveled 18,503 miles in the 5 months, an average of a little over 3,701 miles a month, or over 120 miles a day for 5 months. Richards took his car to the Toronto show, running from Buffalo with it.

Among the Makers and Dealers

Ordering 1907 Cars—A. L. Banker, of the Banker Brothers Co., went to Buffalo last week to see about placing orders for the 1907 cars. This is the first firm to talk 1907 business.

Cryder Opening—Cryder & Co., of New York, American representatives of the Leon Bollee Syndicate, of Paris, have opened a fine four-story garage on the northeast corner of Park avenue and Sixty-third street.

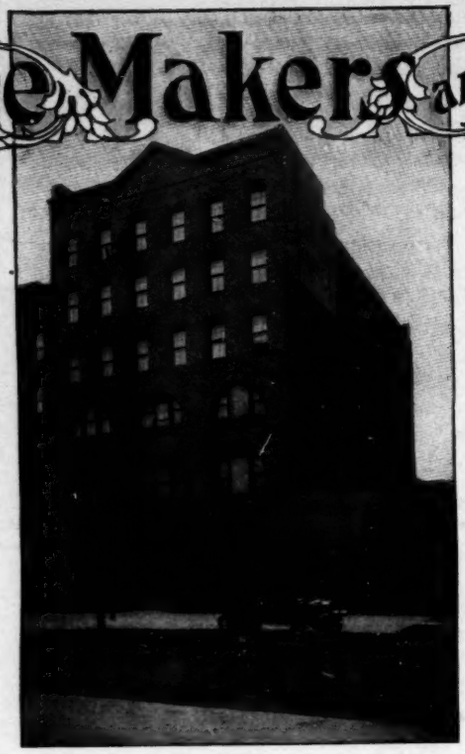
Doubles Capacity—Opened less than 3 months ago, the large garage of the Brazier Automobile Works, at Thirty-eighth and Market streets, West Philadelphia, is to be doubled in capacity. A reading and sleeping room for chauffeurs is also included in the improvements.

Wayne Doings—Temporarily at 23 North Juniper street, Philadelphia, pending the securing and preparation of a permanent abode along gasoline row, the Wayne Motor Car Co. has a force of demonstrators at work giving the quakers a foretaste of the joys to come.

Spring Opening—The Philadelphia quarters of the Mercedes Import Co., at the southeast corner of Broad and Race streets, were opened last week with the usual accompaniment of music and flowers to make the handsome salesrooms more attractive to the crowds of visitors. Manager H. B. Stillman announces his ability to make prompt deliveries.

Speirs with Midgley—John C. Speirs, prominent in the trade as a producer and manufacturer, has gone with the Midgley Mfg. Co., of Columbus, O., and this week assumed entire charge of the plant. The Midgley company has found it necessary in the last 12 months to build an entirely new plant in addition to operating its old one, so brisk has been the demand for Midgley pressed steel wheels.

White's New York Garage—From a scant 1,000 square feet of floor space to over 85,000 square feet is the 3 years' growth in the garage accommodations for White steamers in New York city. By the recent purchase of a plot 100 by 100 feet on West End avenue, between Sixty-ninth and Seventieth streets, one block from Broadway and two blocks from the Seventy-second street parkway, the company has brought its floor space to the latter figures. On the southern half of this property there now stands the Sherman square stables, a six-story building 50 by 100, of semi-fireproof construction. This building, with only slight alterations, will adapt itself admirably for garage purposes. Contracts have already been awarded for



PART OF WHITE GARAGE IN NEW YORK

erecting on the northern half of the property an addition 50 by 100 feet, three stories high. This addition will be completed by July 1 and the building will then afford garage accommodations for 325 cars. Added to the arena of 55,000 square feet of the West End avenue property are the 30,000 square feet of the present establishment on Sixty-second street, making, as already noted, 85,000 square feet devoted to White cars in the city. With a capacity for 175 cars in Sixty-second street, it will be possible to take care of 500 White steamers. The three-story addition soon to be added to the West End property will be provided with walls sufficiently strong to hold four or five extra stories when extra space is again made necessary.

V. E. Co. in Court—The Vehicle Equipment Co., manufacturer of electric pleasure vehicles and commercial wagons, on petition of Kerr, Page & Cooper, Smith & Mabley and George Endicott, with claims ranging from $195 to $869, has been placed in the hands of a receiver, Charles O. Dewey, of Brooklyn, under $10,000 bonds, pending an appearance before the court on April 6 to show cause why it should not be declared a bankrupt. An officer of the company declares that work at the factory, where over 1,000 men are employed, would continue and that a reorganization was in progress under the name of the General Vehicle Co. The company is reported by its officers to have been doing a large business, but to have been hampered by insufficient capital. The General Electric Co. is said to be behind the organization. The company was incorporated in New Jersey in 1900 with a capital stock of $400,000. Three years later it was reorganized under New York laws and the capital stock increased to $3,000,000, of which $2,000,000 is common stock and $1,000,000 preferred. There is also a bond issue of $1,000,000.

Selling the Stearns—The Stearns agency in New York has been taken by R. Gordon Carew, with headquarters at 121 West Eighty-ninth street. George Woolston, the former agent, will be associated with Mr. Carew.

Lands the Lane—The Hudson Automobile Co., which has been recently organized in New York, has secured the Lane agency. A garage and salesroom has been opened at 514-518 West One Hundred and Forty-fifth street. F. C. Schuesler is president of the new company, and Harold A. Wright treasurer.

Owen in Charge—The Diamond Motor Co., 2117-19 North Broad street, Philadelphia, agent for the Jackson and Cleveland in eastern Pennsylvania and southern New Jersey, has secured the services of W. H. Owen, who will hereafter have entire management of its affairs. Mr. Owen is well and favorably known by reason of a long and active service in New York, both in the bicycle and automobile business.

Refuses to Confirm Sale—Judge Swan, in the United States district court, at Detroit, has refused to confirm the sale of the defunct Auto Brass & Aluminum Co., of Flint, Mich., to C. J. O'Hara, of Detroit, and another sale will have to be held. He made an order, upon petition of the C. C. Wormer Machinery Co., of Detroit, that that company may be allowed, after the expiration of 20 days, to take possession of certain machinery bought from it on contract unless the receiver shall pay the balance due before that time.

New Orleans Show—The committee of the New Orleans automobile and motor show has decided to hold an exhibition of automobiles and motors in the Auditorium hall, New Orleans, from Monday, May 14, to Saturday, May 19, inclusive. The hall in which the show will be held is eminently suited for the purposes of such an exhibition. Exhibits can be shipped at low rates by the steamships of the Southern Pacific line direct from New York to New Orleans leaving on Saturday, May 5, and arriving at New Orleans not later than Friday, May 11, in ample time to permit of unloading and arranging the exhibits. The charge for space has been fixed at 75 cents per square foot and allotments of space will be made in the order of receipt of applications. The show committee consists of Albert Mackie, Hart Newman, Jules Godchaux, G. Lehmann, Jr. The rules and regulations governing the show

will be similar to those in force at the New York shows. Major W. Stewart, 50 West Thirty-seventh street, is secretary of the show.

Lozier's Chicago Agency—Geyler & Levy, representing the Autocar in Chicago, have added to their line by taking on the Lozier, handled in the Windy city for a few months by Dan Southard.

Together for 4 Years—A limited partnership, to continue 4 years, has been formed by Morse H. Van Fossen and Francis S. Carmody, under the name of M. H. Van Fossen & Co., to store, repair and sell automobiles in Washington, D. C.

Hollander Goes Abroad—E. R. Hollander, vice-president of the Hol-Tan Co., sailed for Europe Saturday to arrange for deliveries of Fiat cars to customers in Paris. Before his return he will visit the factory at Turin to discuss matters relative to the entry of the Fiat team in the next Vanderbilt race.

Welch Opening in New York—The Welch Motor Car Co., of Detroit and Pontiac, held the formal opening of its New York branch at Broadway and Sixty-second street last Saturday. The salesroom was decorated with palms and flags, a luncheon was served and an orchestra furnished music. There was a large attendance of visitors.

Compound Appointees—The E. H. V. Co., of Middletown, Conn., manufacturer of Compound cars, has placed an agency for Boston and northeastern Massachusetts with the Concord Motor Co., of Concord, which will open Boston salesrooms at once. At Lawrence, Mass., Charles A. Frank is now the Compound agent. A. E. Flint has been awarded the Compound agency for the Worcester territory.

Sherman in New Role—George W. Sherman, who for the past 5 years has represented the Hendee Mfg. Co., has become sales manager of the Reading Standard Cycle Co. He this week doffed his Indian feathers, the doffing being done with the best of good feeling on both sides, the most tangible evidence of it being a gold watch which the Hendee Mfg. Co. presented to Sherman in token of his long and faithful service.

Yucatan Has It—The automobile fever has struck the sleepy old city of Merida, Yucatan. Not long ago an enterprising merchant, J. Rendon, paid a visit to the Franklin factory, at Syracuse, and contracted for two carloads of automobiles. These were delivered at Merida in time for the official visit which President Diaz made to Yucatan and the president and his family rode from place to place in the American cars. The latest report from Merida is that it is proposed to have an endurance test between the Franklin and a German car, the Franklin being of 12 horsepower and the German car of 20-24 horsepower. Translations of challenges which appeared in the Merida papers have been received. There will be a race in the city for a $3,000 stake and a race over the roads from Merida to Progresso, a point on the coast 27 miles distant.

Takes Bigger Place—The New York branch of the Johnson Service Co., of Milwaukee, will remove from its old location on Fourth avenue to a larger building on Twentieth street, between Fourth avenue and Broadway.

Sutphen After Cars—E. W. Sutphen, of New York, importer of the English Daimler, sailed for England this week to arrange for increased shipments of cars, which have been slow in coming owing to demand for them at home following the Olympia show.

Aerocar Branch Location—President Malcomson, of the Aerocar Co., of Detroit, was in New York last week arranging for the opening of the company's branch. A splendid store, situated at Broadway and Seventy-third street, has been leased.

Windsor's Change—J. A. Windsor, Jr., has resigned as general manager of the Windsor Automobile Co. and the name of the firm has been changed to the Evansville Automobile Co., which will manufacture the Simplicity at Evansville, Ind., instead of the Windsor. Mr. Windsor will continue to be identified with the Windsor Motor Car Co., of Chicago.

Change of Name—The Kirk-Hall Co., of Toledo, O., will hereafter be known as the Kirk Bros. Automobile Co., which recently opened an agency for touring cars and commercial vehicles on Jefferson avenue, near Burt's theater. It will be remembered that the Kirk-Hall Co. was recently sold to the Weed garage and, as Ezra and Edward Kirk re-entered the automobile field, it was deemed best to change the old name to a new one.

Blake Moves to New York—Kenneth M. Blake has been made superintendent of the Locomobile branch office in Boston. Mr. Blake has spent a considerable proportion of the past 6 years abroad, and as a skillful driver won a number of medals and other trophies at the hill-climbing contests at Gaillon and other European competitions. In the early days he sold a steam car to the shah of Persia, and toured considerably with Prince Henry of Prussia, who gave him some valuable presents. He has been acting superintendent of the New York branch.

Maxwells in Mexico—J. C. Kirkham, export agent for the Maxwell-Briscoe Motor Car Co., of Tarrytown, has just returned from an interesting trip through Mexico, Cuba and the West Indies. The Maxwell agency for the City of Mexico has been placed with the largest automobile dealers in the republic, who conduct a large and magnificent garage on Juarez avenue. In Havana Mr. Kirkham, on his arrival on Mardi-Gras Sunday, found the newly wedded Nicholas Longworths driving about the Prado and Malecon in a Maxwell car. One of the company's demonstrators drove the president's daugher and son-in-law during their honeymoon sojourn in Havana.

Calls Meeting—A special meeting of stockholders of the Pennsylvania Electric Vehicle Co. has been called for April 24, to consider the question of liquidating the company's affairs.

Reo Press Man Moves—J. W. Gogarn, head of the publicity department of the Reo Motor Car Co., has moved his headquarters from Lansing to the office of Sales Manager R. M. Owen in New York.

Yerger in Charge—Frank Yerger, formerly of the Keystone Motor Car Co., of Philadelphia, has been appointed manager of the Studebaker agency in that city. The Studebaker headquarters are still temporarily located in the Motor Shop, 317-319 North Broad street.

Morley with Eames—After three seasons with the Briscoe Mfg. Co. of Detroit Bert Morley has resigned his position as sales manager of the Detroit parts department and allied himself with Hayden Eames of Cleveland in a representative capacity. Temporarily at least, during W. A. Shockley's trip west, Mr. Morley will be in charge of the territory east of Buffalo and Pittsburg.

Hoosier Plans—Indianapolis manufacturers are busy with experiments on new models, none of which, it is expected, will be placed on the market this season. The Nordyke & Marmon company, is working on a new Marmon which, it is understood, will be built with a six-cylinder engine. Other notable improvements will be made on the car. A new commercial car will soon be brought out by the Premier Motor Mfg. Co.

Bogart in New Role—A change is about to be made in the engineering personnel at the Corbin factory. Fred H. Bogart, who has been identified with the Corbin plant as mechanical engineer practically since its inception, has terminated his active connection with the company. Mr. Bogart will be retained by the Corbin company in an advisory capacity, but his time will principally be devoted to the automobile parts business. A company is being organized in Hartford, Conn., for that line of manufacture, of which Mr. Bogart will be in full charge.

Spring Show—It is expected a spring automobile show will be given in Indianapolis within the next few weeks, according to the plan of S. W. Elston, the manager of the Indiana Automobile Co., of that city. Because of the lack of time in which to plan for the affair, it most likely will be confined to dealers and manufacturers of that city. There are eight factories in the city, and about twenty-five other cars are represented by the various agencies. With such a showing it is believed the show would be a success. An effort is now being made to get a building for the event. If given, the show will last 1 week. It is being given a boom.

BRIEF BUSINESS ANNOUNCEMENTS

Buffalo—David W. Sowers has been appointed receiver for the Niagara Motor Vehicle Co.

Chicago—The G & J Tire Co. will occupy its retail quarters on automobile row about May 1.

Boston—Manager Hinckley, of the Pope Mfg. Co., has completed extensive alterations in his garage.

Philadelphia—The Colonial Auto Co. is making extensive alterations in its garage at Fifteenth and Oxford streets.

Milwaukee—Application has been made for the appointment of a receiver for the Milwaukee Motor & Mfg. Co., formerly the B & P Co.

Sea Gate, N. Y.—Joe Vendig is building a large garage here. It will cover two city blocks and will have a storage capacity of 200 cars.

New Haven, Conn.—Recent improvements to the garage of the White Automobile Co., on State street have rendered the building practically fireproof.

Pittsburg—A permit has been granted to the Fort Pitt Auto Co. for the erection of a one-story garage to be built at Baum street, near Euclid avenue, at a cost of $10,000.

Guadalajara, Mexico—Frank Lake, an American dentist, has leased the mechanical department of the Catholic School of Arts and Trades for the purpose of manufacturing automobiles.

Harrisburg, Pa.—Application for a charter has been made for the J. Kowalsky Engine Co., which will manufacture electric, steam, gas and gasoline engines, motor vehicles and boats.

Lansing, Mich.—The National Coil Co., which has been occupying quarters with the Capital Electric Engineering Co. at 115 Michigan avenue east for the past 2 years, has now leased a two-story building and will greatly enlarge its business.

Boston—W. A. Shaffer, of the Crown Motor Co., has made arrangements for the establishment of public garages at Hampton and Rye Beach, N. H. The E. T. Kimball Co., of which B. F. Blaney is the manager, has added the S & M Simplex to its lines. It already handles the Corbin.

Springfield, Mass.—A change has been made in the management of the Hampden Automobile Co. Myron A. Gilman, who has served as treasurer, has resigned, and Dr. G. H. Janes, the vice-president, has also retired. George W. Cook, of Springfield, succeeds Mr. Gilman, and Robert A. McKee has been elected president. The position of vice-president has been left vacant. The change means that the management of the concern will be entirely from the Springfield headquarters, and that the garage at Westfield will be run as a branch. Mr. Gilman retains an interest in the company and also continues as agent for the Pope car.

Rochester, N. Y.—The automobile garage and livery stable of F. H. Schoeffell was destroyed by fire March 23.

Boston—The Bay State Automobile Co. has taken possession of its new headquarters at 1008 Boylston street.

St. Louis—The Halsey Automobile Co., agent for the Packard and Franklin cars, has added the Buick to its lines.

St. Louis—The Wright Motor & Tire Co., 3924 Olive street, has quit business and is offering its machinery and fixtures for sale.

Columbus, O.—The King Mfg. & Garage Co., of Springfield, has made its stock consist of $19,500, common and five shares of 6 per cent preferred stock.

Kansas City, Mo.—Lemoigne & Obeirne have opened a garage at 1735 Grand avenue. It will confine itself to repair work and to the local representation of the Panhard.

New York—The Mercedes Import Co. has taken the building at 148 West Fifty-sixth street as a garage. The Auto Cover & Top Co. will remove to East Fifty-seventh street.

Providence, R. I.—The Rhode Island Machine Co., capitalized at $20,000, has been organized by Walter M. Jordan, Edwin G. Pinkham and Clayton Harris. The company will manufacture automobile engines, gears and other kinds of machinery and appliances, purchase patents and real estate and carry on a general manufacturing business.

Portland, Ore.—E. H. Wemme is planning the erection of a garage on West Park street.

Boston—The Berkshire cars are now represented in Boston and vicinity by George H. Berg, 8 Motor Mart.

Scranton, Pa.—The Scranton Garage & Motor Car Co. is planning to install a brazing and vulcanizing equipment.

Niagara Falls, N. Y.—John C. Level has started work on the installation of a new charging plant in his garage on Prospect street.

Chicago—A new concern in the manufacture of radiators and hoods is the Wright Cooler & Hood Mfg. Co., of 335 Wabash avenue.

New York—The Simpson-Crawford Co. has opened an automobile department and will make a specialty of automobile supplies and clothing.

Havana, Cuba—German S. Lopez, of the Havana Garage Co., has closed a contract with the Hol-Tan, of New York, for the local representation of the Fiat.

New York—H. Neubauer, manager of the Palais de L'Automobile, has established headquarters for Delaunay Belleville cars in the Windsor Arcade, 571 Fifth avenue.

Kansas City, Mo.—The Missouri Valley Motor Co. has taken over the agency for the White, which was formerly held by the Kansas City Automobile Co., now gone out of business.

Philadelphia—The Diamond Motor Car Co., of 2117-19 North Broad street, is planning extensive alterations to its garage, and among other improvements will install an electric charging plant.

New York—Judge Adams has appointed A. Inch receiver for the National Automobile Co., of 205-209 East Eighty-sixth street, on the application of the Columbia Lubricants Co., and fixed his bond at $2,500.

Boston—The Linscott Motor Co. has found its present quarters at 163 Columbus avenue too small for its rapidly increasing business and has leased the entire building at 41 Stanhope street, formerly occupied by Alvin T. Fuller. Extensive alterations and improvements are in progress.

Holyoke, Mass.—A change has been made in the garage of the Holyoke Automobile Co., on Division street. The office has been greatly enlarged and the repair shop has been relocated and equipped with new machinery, while the storage capacity has been enlarged. The company is the local representative of the Reo machine.

RECENT INCORPORATIONS

Waterford, N. Y.—Acme Automobile Co., capital stock, $1,000; to deal in and store automobiles; incorporators, F. M. Kavanaugh, D. H. McDermott and E. T. Chapman, Jr.

Holdrege, Neb.—Holdrege Automobile Co., capital stock, $10,000; to deal in automobiles and accessories; incorporators, W. H. Padoock, A. F. Larson, W. A. Shreck.

Chicago—Tileston-Pickard Co., capital stock, $30,000; to manufacture automobiles; incorporators, Charles F. Terhune, Jeremiah R. O'Connell and W. C. Asay.

Chicago—Coey Automobile Livery Co., capital stock, $2,500; to rent automobiles; incorporators, Benjamin Levering, G. N. Beckford and A. A. Boone.

Cleveland, O.—Chemical Auto Co., capital stock, $25,000; incorporators, D. E. Marpass, E. G. Whitten, A. F. Neitt, J. M. Gee and Elijah Bates.

New York—McNail-Brainard Engine Co. of Manhattan, capital stock, $10,000; to manufacture engines, motors, machinery, etc.

New York—Goodyear Rubber Tire Co., capital stock, $1,000; to manufacture solid and rubber tires.

Boston—Wayne Automobile Co. of New England, capital stock, $3,000; to deal in automobiles.

Dundee, Mich.—Maumee Motor Car Works, capital stock, $1,000,000; to manufacture automobiles.

New York—Wakeman Motor Co., capital stock, $100,000; to manufacture motors, automobiles, etc.